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Buyout Bids Rock ERP Landscape

Oracle makes hostile offer for PeopleSoft

BY MARC L. SONGINI

In a stunning turn of events, Oracle Corp. on Friday said it will make an unsolicited \$5.3 billion offer to buy rival PeopleSoft Inc., a maneuver that came just four days after PeopleSoft announced a merger with J.D. Edwards & Co. that would prompt it past Oracle in sales of business applications.

PeopleSoft and J.D. Edwards users reacted with dismay to the hostile takeover bid by PeopleSoft, page G7

ACQUISITIONS

Baan sale breathes life into struggling vendor

BY MARC L. SONGINI

Users of Baan International BV's ERP software welcomed with relief last week's sale of the struggling company to new owners that plan to combine it with SSA Global Technologies Inc., a second-tier applications vendor that is also trying to rebound from years of financial problems.

"I think this will be a good thing for Baan," said Keith Bearden, CIO at A-dec Inc., a Baan, page G7

IT Managers See Need for Risk Metrics

Pressure on to prove security effectiveness

BY JAHKUMAR VIJAYAN
WASHINGTON

Technology managers trying to justify and prioritize IT security spending are searching for some way to quantify the risk management benefits.

But a lack of standard processes and the wide variability

of factors that affect risk are making it hard for companies to collect such metrics, users said last week at a conference here organized by Gartner Inc.

"There is an increasing focus on measuring security effectiveness," said Carl Cammarata, chief information security officer at automobile association AAA Michigan in Risk Metrics, page 34

Help From the Feds

A NIST standard covering security risk assessment in the government may also be helpful for corporations.

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100 Best Places to Work in IT

IT workers have taken their lumps in this dismal economy, but not everyone is struggling. Even in hard times, Computerworld's top 100 IT employers shower their staffs with the promotions and projects they crave. Our 10th annual special report shows how these Best Places find inventive ways to keep their IT employees focused, challenged and proud of their work. Stories begin on page 23.

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8 WorldCom denies allegations that it improperly won government voice and data services contracts.

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12 C&W exits the U.S. Web hosting market, but some users aren't surprised after their experience with Exodus.

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ONLINE

ONLINE DEPARTMENTS

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Knowledge Centers

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Computerworld Store

QuickLink a2420

What does it take to be a top IT employer? More than 11,500 IT workers told us what they value in their employers in our 10th annual Best Places survey. It's more than competitive pay, health insurance and sufficient vacation time. IT workers want to use cutting-edge technology, work family-flexible hours and have access to the training they need to enhance their skills. Our special report shows how the 100 Best Places for 2003 are giving their staffs what they crave. STORIES BEGIN ON PAGE 23.

26 Layoff Survivors. The economic downturn forced even Best Places to lay off IT workers last year. How did they survive? Open communication was the driving force. "Our employees expect that we will tell them what we know

"when we know it," says Allmerica CIO Greg Tranter (left). In addition, we offer some tips for managers on handling layoffs with directness and honesty.

28 Cream of the Crop. We offer a look at the technology projects, challenges and unique management approaches at the top three Best Places.

A CLASSIC LOSS

Computerworld columnist David Woods drives deep into this year's Best Places survey numbers to look at the companies that make for top 100 employers.

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COMPUTERWORLD 100 BEST PLACES TO WORK IN IT 2003

■ At No. 1-ranked Hershey Foods, the pace of technology innovation keeps things interesting for the IT staff (120 projects are currently under way). "From a technical standpoint, you never get stale," says one employee. Page 29

■ IT staffers at Harley-Davidson (No. 2) ride high on the company's ultracool mystique and a slate of new projects, including one that allows potential buyers to customize their dream bikes. Page 29

■ No. 3-ranked University of Miami boasts a location that offers its IT staff surf and sun. Add to that the opportunities for education, flextime and upward mobility. Page 32

34 Balancing Act. Demands on IT workers are increasing, but Best Places give managers the power to help IT employees find individualized alternatives for managing work and personal time.

41 We looked at how can we... put our employees closer to home, and we've used our internal network to do that.

KEVIN DEMARCHELLE,
SOUTHERN CALIFORNIA EDISON

36 100 Best Places to Work in IT. See the full list of top 100 companies, sorted by overall ranking, with data on training, staff turnover and promotions. Plus, how we conducted this year's survey.

50 Stress-Busters. In our survey, 34% of IT employees said they find their work stressful. Check out tips from IT workers and managers about stress-reduction initiatives that work, such as the on-site workout room at Freddie Mac.

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BEST PLACES PROFILES

At Network Appliance (No. 4), the executives live an open-door policy that promotes collaboration. QuickLink a2570

A full slate of technology projects is keeping IT workers at Video (No. 11, last Oct. 31). QuickLink a2420

INNOVATIVE CHAMPS

Which companies offer the most interesting days for their IT employees? Check out our interactive chart online, sortable by key data points and with links to the winners' Web sites.

QuickLink a2420

AT DEADLINE

Credentials of DHS Official in Question

Laura Callahan, deputy CFO of the U.S. Department of Homeland Security (DHS), was put on administrative paid leave last week after questions surfaced about her academic qualifications, a DHS spokeswoman confirmed. The move came after members of Congress contacted the DHS about allegations that Callahan had received her academic credentials from a "diploma mill" and about the department's policy on background checks.

Sun to Demo Rapid Development Tool

Sun Microsystems Inc. at JavaOne this week will announce a tool code-named Project Rave and aimed at corporate developers who need to rapidly build Web-based applications. The tool, expected to ship next year, will enable developers to build applications that can be deployed on any standards-based Java application server, officials said.

Outlook for Tech Spending Still Weak

While a majority of North American companies surveyed separately by Forrester Research Inc. and Meta Group Inc. said they're holding steady with their IT budgets for the year, 23% and 30% of the respondents, respectively, said they plan to shrink their technology spending. The results led Forrester to revise its 2003 IT spending forecast downward from the 1.9% average budget increase it projected to 1.3%.

Short Takes

INTEL CORP. and **SUN** today said they're collaborating in an effort to optimize Java applications for mobile devices based on Intel's XScale processors. . . . The U.S. DEPARTMENT OF DEFENSE officially authorized the use of open-source software internally.

Asia's Rise as Chip Power Causes Security Concerns

Production shift also a labor issue, U.S. senator warns

BY PATRICK THIBODEAU
WASHINGTON

NATIONAL SECURITY — and high-tech jobs — could be endangered if the U.S. doesn't stop semiconductor manufacturing's accelerating shift to countries in Asia, particularly China. That was the warning of U.S. Sen. Joseph Lieberman (D-Conn.) in a report delivered to U.S. Secretary of Defense Donald Rumsfeld last week.

A continuing migration of semiconductor manufacturing to Asia, along with the potential loss of research-and-design centers, has grave national security implications, according to the report, titled "National Aspects of the Global Migration of the U.S. Semiconductor Industry."

If that trend continues, "the U.S. will lose the ability to re-

liably obtain high-end semiconductor integrated circuits from trusted sources," the report states.

Reversing the trend will require a variety of actions, including enforcement of trade regulations to prevent Chinese companies from discounting their chips and the use of defense contracts to help build up the U.S. semiconductor industry, according to the report.

Despite the stark security warning, Craig Casey, a professor of electrical and computer engineering at Duke University

in Durham, N.C., who has advised defense agencies on electronics issues, said the shift overseas "is more of an economic than military threat."

Casey said the U.S. remains the leader in high-performance semiconductor development on the strength of Intel Corp., Texas Instruments Inc. and IBM. And that lead will be retained "until Intel pulls up its stakes and leaves California. . . . Then it's another game," he said facetiously.

"The reality for us is that it's a global market," said Intel

spokesman Chuck Mulloy, who noted that 70% of its sales come from outside the U.S. and that Asia-Pacific is its largest geographical market.

Of Intel's 78,700 employees, 65% are based in the U.S., a percentage that has remained fairly constant for the past several years, Mulloy said. And four of the company's five most recently built fabrication plants are in the U.S.

But revenue numbers from Framingham, Mass.-based IDC show significant growth in the Asia-Pacific chip market. Last year total semiconductor revenue in that region was just over \$51 billion, a 28% increase from 2001. Revenue in North America, meanwhile, was \$31 billion, representing a 13% decline from the previous year.

George Scalise, head of the Semiconductor Industry Association in San Jose, said there has been an unquestionable shift to manufacturing in the Asia-Pacific region. But he said 80% of the manufacturing by U.S.-based semiconductor companies is still done in the U.S., representing 40% of the world's output.

The U.S. clearly is the leading chip innovator, Scalise said, adding "I think we can maintain that."



China, in particular, is gaining ground in semiconductor manufacturing.

Nortel Technology Links IP, Digital PBX Systems

Common operating software due in Oct.

BY MATT HAMBLEY

Nortel Networks Ltd. today will unveil plans to deliver common operating software for its Succession line of IP-based digital branch exchange (PBX) systems and its older Meridian digital voice switches.

The announcement will be made at the annual International Nortel Networks Meridian Users Group conference, which is being held in Las Vegas. However, Nortel doesn't plan to ship the Succession Enterprise Software Release 3.0

technology until October.

Once the software is available, companies with Meridian I switches will be able to use them to provide the same functionality as an IP-based PBX, said Ann Swenson, a senior product marketing manager at Nortel in Brampton, Ontario.

The cost and complexity of investing in IP devices has been a barrier in many companies, so being able to run IP software on a Meridian I switch "is a great direction for Nortel to be going," said Marianne Collin, president of the Dallas-based Meridian user group, which has more than 7,000 members and operates

independently of Nortel.

Three years ago, Clarica Life Insurance Co., where Collin works as telephone services manager, decided to install Meridian I switches instead of IP hardware at an office in Waterloo, Ontario. Collin said she thinks it's an investment Clarica — now a division of Sun Life Financial Services of Canada Inc. — wants to maintain.

Swenson said the new software will support Meridian I systems as well as Nortel's Succession Communication Server for Enterprise 1000 IP PBX and its upcoming Succession 1000M device, which is also due in October. IP telephony features that will become available to Meridian users include

greater scalability and reliability, intelligent call routing and remote access to applications running centrally.

Barry Marks, an analyst at PBI Media LLC's InfoTech subsidiary in Parsippany, N.J., said the new software will give

Meridian I users "the opportunity to migrate to an IP telephony platform without a 'forklift' change." Although Nortel's approach won't provide "a truly unified IP environment, it's a solid step in that direction for Meridian users," Marks said.

He added that installing the Succession 3.0 software on a Meridian I switch could save tens of thousands of dollars compared with buying an all-new IP PBX from Nortel. ■

USER VIEW

Marianne Collin gives her take on Nortel's latest news.

QuickLink 30021
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SQL Server Delay May Inflict Pain

Many Microsoft users unfazed, but some early adopters anxious to get new features

BY CAROL SLIWA
DALLAS

The delay of Microsoft Corp.'s SQL Server release code-named Yukon to the second half of 2004 won't matter much to the scores of corporate users who already are hand-pressed to keep up with new releases.

But the slippage announced last week at the company's TechEd 2003 conference, may cause pain for some users — especially those who are anxious to use the database server's improved features and potentially some who bought into Microsoft's Software Assurance maintenance program.

"Database mirroring looks so useful that we would be testing it today if it were avail-

able. It looks like we could use it for applications that require high availability and for applications that require remote disaster recovery," said Bill McNabb, a Concord, Calif.-based database administrator at Bank of America Corp.

Keith Gilbert, an enterprise data architect at Laird Ready Inc. in Tacoma, Wash., said he's excited about the integration of the .Net Framework's Common Language Runtime (CLR) in Yukon, which will mean developers won't be restricted to using T-SQL to program to the database.

"I'm kind of heartbroken about the delay," Gilbert said.

Paul Flessner, senior vice president of Microsoft's Win-

dows Server System division, attributed the slippage to the need for a yearlong beta for quality assurance and the added time required to embed the CLR into SQL Server, a joint effort with the company's tools team. The original time frame for shipment was the end of 2003, according to Stan Sorenson, director of SQL Server product management.

"I always said I wouldn't do more than a 36-month release, and here I find myself doing that. But you know, it's the circumstances we're in," Flessner said. He noted that the current version of SQL Server shipped in August 2000.

The longer wait for useful new features isn't the only potential aggravation for some

companies. Depending on the month in which Yukon ships in 2004, the delay opens up the possibility that some early adopters of Microsoft's Software Assurance agreement may fail to see a SQL Server upgrade during their contract period. But Flessner said he's less worried about product delays knowing that Microsoft made changes to Software Assurance to bring additional value to the program [QuickLink 38753].

Flessner said Microsoft conducted extensive surveys of customers because "there was a consensus that the value proposition wasn't good enough" for Software Assurance. He said Microsoft asked if they wanted a "guaranteed release," but that offer didn't test well. The "day-to-day value of having support" did, Flessner said.

Starting in September, customers will be able to receive Web or telephone support, depending on their license level.

But several TechEd attendees said they expect an upgrade to be part of a three-year Software Assurance agreement, with support in addition to that.

"You buy it for the whole enchilada," said Gilbert. "I think you should expect at least one upgrade during the three years."

"They should throw in support for what you pay for their products," said Jay Hall, a unit manager of server engineering at Blue Cross and Blue Shield of Alabama in Birmingham. "With IBM and everybody else, we don't have to pay. It's part of what you get."

Microsoft often makes the argument that its products cost considerably less to start with, so its overall costs are lower, even though its maintenance percentages are higher.

Some users said they would expect an extension or a discount if they didn't get an upgrade before Software Assurance expired. "I'd be pretty upset, but what are you going to do?" Sue McDonald said. Dan Fornier, a senior computer specialist at Daval County Schools in Jacksonville, Fla.,

Other Server Product Ship Dates to Slip

DALLAS Microsoft Corp. last week delivered a beta release of BizTalk Server 2004, the first phase of Asprise, the code name for its e-business software.

The second phase of Asprise will feature a fully integrated set of products — BizTalk Server, Content Management Server and Commerce Server — when it ships in 2005, said Paul Flamer, senior vice president of Microsoft's server software division. When it announced Asprise last fall, Microsoft had pegged Phase 2 for the first half of 2004.

Microsoft's management products will follow a similar pattern. Systems Management Server 2003, due in September, and Microsoft Operations Manager 2004 will simply be bundled in the initial version of the Systems Center Suite, which is due next year.

Flamer said the deeply integrated Systems Center rollout is based on the planning horizon of 2005. At Microsoft's Management Server in March, a company executive held said the integrated version would emerge in 2004.

Other parts of Flamer's road map included:

■ A successor to Exchange Server 2003, code-named Katalin, in 2006 or later. Release Candidate 1 for Exchange 2003 was released last week.

■ A Visual Studio development tool suite code-named Whistler, in 2004, and its successor, Orcas, in 2005.

Also last week, Flamer announced the price for a developer edition of SQL Server is being cut from \$499 to \$49.

— Carol Sliwa

Microsoft Exec Draws Server Software Road Map

DALLAS

Microsoft Senior Vice President Paul Flessner last week in an interview at TechEd discussed product plans and issues involving his Windows Server System division.

Is there any chance that SQL Server could ship just 2004? I don't think so. We are really locked down. The SQL Server team is a pretty well-disciplined team. There's not a lot of unknowns. They're narrowing in and getting ready to ship. I would be worried if I were stopping the beta. That would be a bigger danger sign. I'm not stopping the beta.

Were you involved in the work to add value to Software Assurance? Very interesting. We've been working hard on it for over nine months.

Because you anticipated that a product ship date might slip at some point? No. It was just that there was a consensus that the value proposition wasn't good enough. And share on us for not doing enough due diligence upfront. We thought we had enough.

You showed a slide propping the Windows release code-named Longhorn for 2005 and Windows Server "What?" for 2006. What's the story with What? No code name.

It could be Longhorn or its successor, Blackcomb? We're still sorting through what we're going to do. The server team has just spun off of Windows Server 2003, and we don't expect another server

release for three years.

The server release could have the Longhorn kernel or it could have the Blackcomb kernel? I don't know. It'll be a kernel. The code names don't mean anything. Whatever we do, we'll have Longhorn changes in it.

Is it correct that the client and server operating systems won't come out at the same time? Yes. And they may decide, "Hey look, we want to ship something with the client because we need some feature in the server." So I wouldn't rule that out. The team needs a little time to sort through it.

— Carol Sliwa

MORE ANSWERS

To read the full interview with Flessner, visit our Web site: www.computerworld.com. [QuickLink 38682](http://www.computerworld.com)

ALSO AT TECHED

Microsoft announced availability of the first beta of BizTalk Server 2004. [QuickLink 38684](http://www.computerworld.com)

BRIEFS

SEC Looking Into IBM's Accounting

IBM disclosed that the U.S. Securities and Exchange Commission has launched a formal investigation of its accounting practices for 2000 and 2001. The company defended its revenue-recognition policies and said the SEC is describing the probe as "a fact-finding investigation" at this point. The probe seems to have been triggered by an SEC investigation of an unidentified customer, IBM said.

Microsoft Warns of Web Browser Holes

Microsoft Corp. warned of two security flaws that affect all current versions of its Internet Explorer Web browser on operating system releases up to Windows Server 2003. But the company said the default configuration of the new operating system isn't vulnerable. As a result, it rated the flaws "moderate" for Windows Server 2003 and "critical" for other versions.

General Dynamics Wins Army Pact

General Dynamics Corp. said the U.S. Army has awarded it a 10-year contract, with a value of up to \$2 billion, to provide IT products to the U.S. Department of Defense and other federal agencies. The deal replaces an earlier 10-year contract that was due to expire in April 2005. Falls Church, Va.-based General Dynamics said it has received about \$300 million worth of orders under the existing pact.

Short Takes

SUN MICROSYSTEMS INC. said it has cut prices by up to 25% on its eight-processor Sun Fire V880 server and 20% on the four-CPU V480 model. ... **INTEL CORP.** released three new versions of the Pentium M processor used as part of its Centrino chip set for mobile PCs.

MARK HALL • ON THE MARK

Herding Cowboy Coders to Conform . . .

... to standard development practices is one of the toughest jobs for IT management, says Adam Kolawa, CEO of Parasoft Corp. Programmers' individuality and temperament often get in the way of their following even well-defined process procedures. And saying "pretty please" won't always work, either. Most managers think that if everyone uses the same product set, standard practices will result. Not so, says Kolawa. "Even if they all have the same tools, it isn't good enough," he argues. "You need to impose uniform settings on the tools and uniform reporting on how they are using the tool in practice." What better place to yank the reins on developers than at this week's JavaOne

Conference in San Francisco? That's where the Mountain View, Calif.-based company will unveil Parasoft Java Solution, which provides Java developers with collaboration capabilities and managers with ways to impose "forcing coded practices." And just to make sure, the product spits out reports that show how well the group and individuals within it are adhering to those practices. You can start cracking the whip for \$30,000. • Sun Microsystems Inc. gives open-source boosters a. um, boost this week when it teams with Zend Technologies Ltd. in Tel Aviv and seeks expected approval of Java Specification Request (JSR) #223 by the Java Executive Committee at JavaOne. What's the big deal for this JSR? (JSRs are precursors to officially sanctioned Java standards.) Well, Zend

leads the development of the open-source PHP scripting language that is currently used on more than 9.5 million Web sites. It's a preferred tool to invoke all that front-end dynamic HTML we see today. Java, as you know, is widely used on the back end. But getting PHP scripts to be recognized by Java apps isn't easy:

A standard process would help. Interestingly here is that Sun is pushing a non-Java scripting language. Could it be a defensive move against Microsoft Corp.'s Active Server Pages scripting language? Gee, ya think? • PHP gets another shot in the arm when EJB Solutions Inc. adds it to its exclusive 100 top open-source products in its Out-of-the-Box 2.1 open-source collection at the end of the month. Rod Cope, CEO of the Highland, Colo., company, says

his team regularly pores over 80,000 open-source projects currently lurking around on the Internet and chooses the ones that will best serve his Fortune 2,000 customers. The package includes simple install and uninstall features and copious documentation. The 2.1 release will also add plug-ins for Apache; Oracle support for JBoss; and what Cope calls the hottest new open-source developer product, Hibernate, an object-mapping tool for databases. For \$70, you can't go wrong. • What IT recession? Michael Howard, CEO of Campbell, Calif.-based OuterBay Technologies, says his company is doubling its sales force in the next two months and saw 300% revenue growth from 2001 to 2002. Start-ups do that sort of thing. At least, they used to. He's also watching the fortunes of SalesForce.com Inc. and Google Inc. to see when (or if) they go public because his company may follow in their wake. "Salesforce is the spearhead here," he says. In the meantime, he's happy that OuterBay will be announcing Application Data Management 3.0 next week for release next month. ADM 3.0 will let CIOs migrate data from Oracle and Peoplesoft applications to less expensive Linux servers and ATA disk drives. **Siebel and SAP apps are next on the list.**

• While you're moving application data around, you might want to do the same with databases. Lakeview Technology Inc. in Oakbrook Terrace, Ill., ships OmniReplicator 4.0 next week. It lets you instantly synchronize databases in different locations across the street or across the globe. The product has been completely rewritten in Java and can use any JDBC driver. It adds monitoring and control features, and currently works with DB2, Sybase, SQL Server and Oracle. In the third quarter, Lakeview will rekindle Informix support, which it had snuffed out of the 3.0 release. ▀

WorldCom Defends Federal IT Contracts

BY MATT HAMBLIN

The top official in charge of federal contracts at WorldCom Inc. last week said the company hasn't received any special consideration in winning recent government contracts for voice and data services.

"I don't see that [federal bidding] process, as rigorous as it is, that MCI could be shown any favoritism," said Jerry Edgerton, senior vice president of government markets at WorldCom, at a press conference in Washington. "We've won this stuff fair and square."

WorldCom, which continues to operate under Chapter 11 bankruptcy protection, now uses its MCI brand name for all business purposes.

Sen. Susan Collins (R-Maine), chairman of the Senate Governmental Affairs Committee, last month launched an investigation of the government's dealings with the company, including a one-year extension to an umbrella purchase contract that

the U.S. General Services Administration (GSA) awarded to WorldCom in November.

The GSA last week released documents to the Senate committee saying that it continued to do business with WorldCom after disclosures of massive accounting problems at the company because WorldCom's new management team was working to deal with the fraud. In addition, WorldCom had provided reliable network service and quick repairs, according to the GSA.

Government business accounts for only about 5% of WorldCom's annual revenue, Edgerton said. He also noted that his unit of 1,500 workers has a strong reputation for ethics inside WorldCom.

Recent government wins by WorldCom include a seven-year deal for high-speed data communications from the National Oceanic & Atmospheric Administration, with a maximum value of \$11 million, and a \$20 million contract from the U.S. Department of Defense to set up a cell phone system in Baghdad. Both those contracts were awarded last month. ▀



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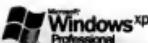
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Start-up Challenges EMC With E-mail Archiving Technology

Persist releases software for message storage, giving Centera competition

BY LUCAS MEARIAN

START-UP Persist Technologies Inc. is releasing archiving and search software that it said uses digital certificates and commodity blade servers to address federal regulations governing the retention of e-mail messages by financial services firms.

Pleasanton, Calif.-based Persist this week plans to announce the general availability of its AppStar technology, which can be combined with any brand of blade server to create an appliance designed to support secure e-mail archiving and instant retrieval of messages via the Internet.

Analysts said AppStar will compete head-to-head with EMC Corp.'s Centera fixed-data disk array, which uses software to create a unique 27-character identifier for every electronic document it stores, ensuring that the information can't be overwritten.

'Signing' E-mail

Persist officials said AppStar sits in front of e-mail servers and automatically assigns a digital certificate based on public-key infrastructure (PKI) technology to each message. The digital certificate is authenticated each time an end user retrieves a stored e-mail, and messages that are modified in any way receive a new PKI signature.

AppStar also works with WORM (write once, read many) storage devices, making it compliant with U.S. Securities and Exchange Commission rules that require financial services firms to retain all e-mail, Persist said. In addition, the software can be used to archive electronic documents, images and audio files.

Lt. Col. Chuck Hoppe, information management officer for the assistant secretary of the U.S. Army, bought AppStar as an early user last August and installed it onto a group of six Hewlett-Packard Co. blade servers at an Army base in Radford, Va.

The software is being used to manage an e-mail network for about 195 end users who typically don't delete any of

their messages, Hoppe said. He added that if he had simply archived the e-mail on disk drives, it wouldn't be as easy to search for or retrieve the messages as it is with AppStar.

Persist's technology "has a very robust search capability," Hoppe said. End users can search an entire e-mail directory "by block, name, time or keyword," he noted. "I could be anywhere in the world, [but] if I can get to a Web browser, I can get to all of my e-mail."

AppStar is also being evaluated for possible use on two

other military e-mail networks, including one that supports about 650 workers at the Pentagon, Hoppe said.

Steve Kenniston, an analyst at Enterprise Storage Group Inc. in Milford, Mass., said AppStar can easily be migrated into data centers as users move toward utility-based computing models built around commodity hardware. Hopkinton, Mass.-based EMC offers enterprise technology but will have to continue selling Centera as a stand-alone box, he said.

Persist's AppStar Software

- Uses commodity blade servers to store e-mail messages.
- Can retrieve e-mails in less than seconds by name, time or content.
- Uses PKI technology to "sign" each message as it's stored.
- Works with WORM storage devices.

However, Centera is less expensive than AppStar. For example, EMC's new Centera Compliance Edition model is priced at \$148,000 with 4TB of usable storage space. AppStar sells for \$45,000 per terabyte of capacity without the blade server hardware, Persist said. ■

Anti-UCITA Legal Measures Outnumber State Adoptions

Software licensing act stalls; backers continue struggle

BY PATRICK THIBODEAU

A Massachusetts legislative committee's hearing last week on an anti-UCITA bill could herald the state's becoming the fifth to enact a law to protect its residents and businesses from the controversial software licensing legislation.

The hearing underscored the difficulties confronting backers of the Uniform Computer Information Transactions Act. Only two states, Virginia in 2001 and Maryland in 2000, have enacted the model legislation.

Meanwhile, four states have adopted anti-UCITA measures, and the law's progress toward state-by-state adoption appears to be stalled.

John McCabe, an official at the National Conference of Commissioners on Uniform State Laws (NCCUSL) in Chicago, said a UCITA adop-

tion bill is pending in the District of Columbia but not anywhere else. With state legislatures generally winding down for the year, the district is "the only expectation that we have at this point," he said.

The measures adopted by the four anti-UCITA states — Iowa, North Carolina, West Virginia and, just last month, Vermont — are referred to as "bomb-shelter" legislation. The intent is to prevent a vendor from applying Maryland's UCITA law provisions to residents in other states, for instance.

The Massachusetts Joint Committee on Commerce and Labor held a hearing on the anti-UCITA bill June 2. No action was taken, a committee spokesman said.

LEGAL ISSUES

'Bomb Shelters'

Massachusetts' version of the Uniform Computer Information Transactions Act would allow companies to limit the application of the law to their home state. Other states have adopted similar laws.

UCITA's opponents, which include library and consumer-protection groups, the majority of state attorneys general and some large software users, say they succeeded in preventing UCITA's adoption in Oklahoma and Nevada this year. But despite those successes, they say UCITA remains a threat.

'Not Dead Yet'

"It's not dead yet," said Randy Roth, a principal at Corporate Contracts LLC, a consulting and contract negotiation firm in Urbandale, Iowa. But Roth said awareness and concern among IT managers about UCITA are dwindling — and that worries him. "The message to that group is, 'Don't let your guard down,'" he said. "We can't let up yet."

Carlyle "Cosmic" Ring Jr., chairman of the NCCUSL's UCITA drafting committee, said proponents will continue to press for state-by-state adoption. He argued that companies need a uniform set of rules for conducting Internet transactions, and if the states

don't enact such rules, Coo-
gress will.

"The real issue is whether the states are going to work this out among themselves," Ring said.

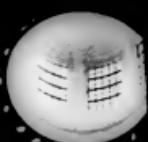
He attributed the dearth of state adoptions to an agreement with the American Bar Association, under which the NCCUSL refrained from pushing the law for an 18-month period that ended late last year, pending review by the ABA. The ABA ultimately took no action on it, even though a special committee criticized the measure (QuickLink 30306).

According to opponents, UCITA sets default contract terms that favor software vendors and free them of liability for any problems with their products. Supporters say that companies are free to negotiate terms and conditions, and they have attempted, unsuccessfully, to ameliorate concerns by removing some controversial provisions.

One such provision, called "self-help," would have allowed vendors to disable customers' systems during disputes. ■

MORE ONLINE

For more stories on this topic, visit our UCITA special coverage page:
www.computerworld.com
 QuickLink #30306
www.computerworld.com



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U.S. Users Weigh Options as Web Host C&W Exits Market

Many not surprised by the move, but schedule is unclear

BY TODD R. WEISS

WHEN C&W Wireless PLC announced plans to abandon the U.S. Web hosting and services market last week, customers appeared to take the announcement in stride.

Several C&W users said that because of the large overcapacity in the troubled Web hosting market, they foresee little problem finding another vendor. But the uncertainty surrounding the timing of C&W's pullout is causing a headache for some.

Russell Kuteman, vice president of finance for amusement park company Six Flags Inc.,

which sources content-delivery and Web hosting services from C&W, said it's too early to decide what his company will do. And C&W isn't helping much with that decision.

C&W spokesman Chad Couster said the company's U.S. customer base would be valuable for another vendor that could potentially come in and take over those accounts. Service will continue unaffected during the transition, he said. "We want to maintain the value of the business" while other avenues are explored, he added. But no deadlines have been set for when another vendor must be found or for the end of C&W's service.

That presents a problem for Oklahoma City-based Six Flags, which doesn't know how long to wait before deciding what steps it should take,

NUVU MINI R, 7000I
C&W acquires Exodus' U.S. customer base.

NUVU MHLR, 7000I
C&W announces pullout from major U.S. clients.

JUNE 2003
C&W announces pullout from U.S. market.

Kuteman said, "Companies like us and others that have commerce across their Web sites can't afford to be in a risky situation as far as services go," he said. "We're going to keep a finger on the pulse [of the situation], and the minute our comfort level moves in the negative direction, we'll be gone."

John Godwin, chief technology officer at online movie download service MovieLink LLC in Santa Monica, Calif., said C&W's announcement of a sweeping restructuring and

complete exodus from its money-losing North American business won't be a surprise.

"I think a number of companies have been in trouble in this economy," he said. "We think they'll handle this very responsibly" by finding a qualified buyer or giving clients enough notice to make new arrangements. "We just don't think it will have an impact."

Many C&W customers were in the same predicament 18 months ago when C&W took over the U.S. business for bankrupt Web hosting vendor

Exodus Communications Inc. [QuickLink 2553].

Rick Thimble, IT manager for the U.S. and Europe at plastic parts maker Moldflow Corp. in Wayland, Mass., said he's not worried, even after having gone through the same experience with Exodus.

The C&W announcement comes less than three months after Moldflow added an IP virtual private network contract to its Web hosting deal with C&W, Thimble said. "We're still implementing the network," he said.

"There's not too many ... companies that haven't gone through this," he said of C&W's cuts. "What are your thoughts?"

Ron Pellowe, director of systems and networks at online equipment asset marketplace EquipmentDirect Inc. in Braintree, Mass., said he also survived the Exodus melt-down. "Honestly, I don't think it leaves us in a bad place," Pellowe said. "There are a lot of vendors out there who are hungry. I'm not feeling like we're without options." ▶

Palm to Buy Handspring To Bolster Hardware Unit

Merged company expected to be stronger competitor against Microsoft, other rivals

BY BOB BREWSTER

Corporate users and analysts last week said Palm Inc.'s planned acquisition of handheld device rival Handspring Inc. should result in a combined company that's better able to compete with Microsoft Corp. and cell phone makers in the mobile markets.

Milpitas, Calif.-based Palm announced that it's buying Handspring in a stock-swap deal that's expected to be completed in the fall. Palm plans to combine its own hardware unit and Mountain View, Calif.-based Handspring under a new name that has yet to be chosen. The merger will coincide with the previously announced spin-off of Palm's

operating system division into a separate company.

Gail Browder, executive vice president for products and services at PHT Corp. in Charlestown, Mass., said the Palm/Handspring combination will produce a bigger, more competitive company. PHT has deployed "tens of thousands" of Palm devices over the past 12 months to support clinical trials it runs for drug companies, she said.

In particular, Browder noted that Handspring will offer Palm expertise in building handhelds with integrated wireless capabilities, which she sees as an essential feature. She also said that bringing back Jeff Hawkins,

who co-founded Palm before leaving to help hatch Handspring in 1996, will help Palm "stem the perception of brain drain" that still lingers from its departure.

Palm said Hawkins, who is now Handspring's chairman and chief product officer, will become chief technology officer at the merged company. The company will be run by Todd Bradley, currently president and CEO of the Palm Solutions Group hardware unit.

Extending Its Reach

Sam Bhavani, an analyst at ARS Inc. in La Jolla, Calif., said Handspring will provide Palm with something it has sorely lacked: strong partnerships with major U.S. cellular carriers. Bhavani said Handspring has partnerships to sell its Treo smart phones through three cellular carriers: Cingular Wireless, Sprint PCS Group and the T-Mobile division of Deutsche Telekom AG. Palm, in contrast, has a sales

and marketing deal with only AT&T Wireless Services Inc. Dan Wilkinsky, a spokesman for Overland Park, Kan.-based Sprint, described Treo "as a real winner for us." Partnerships with handheld device makers are "absolutely vital"

Handheld Combination

LATENT FINANCIAL RESULTS

Palm had \$100.2 million in revenue of \$250.2 million in its third quarter, ended Feb. 28. Handspring had \$164.2 million in revenue of \$232.2 million in its third quarter, ended March 28.

EXPANDED CLOUD MARKET

Both companies already, including a recent buyout of Handspring, are expanding their range of products beyond handhelds to include desktop PCs and notebooks.

PLANNED MARCH MERGER?

Analysts don't think Handspring and Palm will merge until later this year, but the two companies are discussing the possibility.

in order to ensure that the products they develop are "integrally woven" into the strategic plan of a carrier like Sprint PCS, Wilkinsky said.

The planned merger was almost inevitable because of the tough market for handhelds in recent months, said Phil Redman, an analyst at Gartner Inc. Handspring was particularly affected by the sales slowdown because Treo hasn't "really reached a wide enough audience," he said. "When there's such a small market overall, it's very difficult for small vendors to compete."

But Redman warned that bringing all the Handspring and Palm hardware executives together at one company could lead to "coexisting visions and disagreements at the top." Such problems led Hawkins and two other executives to form Handspring in the first place, he said. ▶

Reporter Todd R. Weiss contributed to this story.

DATABASE BENCHMARK REPORT

7

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check this out

**Record Scalability Benchmark
Achieved with 30,000 Concurrent Users**

Application	Global 7 Application Suite
Database	Microsoft SQL Server 2000 Enterprise Edition 9.0.4035
Operating System	Microsoft Windows Server 2003, Datacenter Edition
Hardware	Unisys ES7000 Chassis 100, 4300M41, 0300B1

Microsoft

Page 4

Page 1 of 2



HP to Buy, Manage Ericsson's Systems

Hewlett-Packard Co. and LM Ericsson Telephone Co. formally announced a five-year IT outsourcing deal, as expected. Under a transition that's due to start next month, HP will buy Ericsson's global IT infrastructure and manage it for the Stockholm-based company. About 1,000 IT workers at Ericsson will transfer to HP, the companies said. Financial terms weren't disclosed.

Fiorina Looks to Grab Market Share

In other HP news, CEO Carly Fiorina said at a meeting with analysts in New York that she hopes the company can increase revenue by taking market share from rival vendors. "We don't need IT spending to grow," Fiorina said. "We need customers to spend more of their IT dollars on us." She added that HP expects revenue of \$36.6 billion in the second half of its current fiscal year.

EDS Signs PC Deal With Barclays

Electronic Data Systems Corp. said it has won a seven-year, \$350 million deal to provide managed desktop PC outsourcing services to London-based Barclays PLC. The contract covers a total of 41,700 PCs across various Barclays business units, EDS said. The Plain, Texas-based company also announced a managed service for mobile devices used in corporate applications.

Short Takes

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Users Take Some Blame For Faulty Applications

Share responsibility with vendors for software defects

BY JAUKUMAR VIJAYAN

WHEN IT COMES to placing blame for software defects, users are apparently almost as willing to take it as they are to dish it out to vendors. That was one of the findings of a Gartner Inc. survey of 172 IT professionals that was conducted last week.

"One of the most surprising things about the survey was the extent to which respon-

dents were willing to allocate liability for software defects on themselves," said Richard Hunter, an analyst at Stamford, Conn.-based Gartner.

About 47% of survey respondents said that user companies should be legally liable for damages caused by flaws such as buffer overflows in the software they develop. At the same time, about 57% of the respondents said software vendors should be held legally accountable for flaws in the

software they develop.

"The numbers show a logical consistency when it comes to allocating blame" for bad software, Hunter said. Such sentiments come at a time when companies are facing unabated threats from both internal and external attackers.

The results of an annual survey by the Computer Security Institute and the FBI released last week show that the number of major security incidents companies report-

47%

Continued from page 1

Risk Metrics

Dearborn. Companies are realizing that "you can't manage what you can't measure."

Driving the trend is the fact that security budgets have been rising by 20% annually over the past couple of years, said Richard Hunter, an analyst at Stamford, Conn.-based Gartner.

"These have been pure costs, and CIOs and CEOs are asking what they are getting from all that spending," Hunter said. "If the response is, 'You are getting better security,' the next question is, 'How do you know?'

As a result, security administrators are under growing pressure to find quantitative measures to demonstrate the efficacy of their security strategies.

"You need to have a baseline to measure against. If you don't have any measurements, you don't know where you are," said Gregory Waters, a senior information assurance engineer at TWM Associates Inc., an IT auditing firm in Fairfax, Va.

The numbers can come from a variety of sources. For

example, said Gartner, a company could collect metrics on the number of attacks it faced during a specific period, the type of attacks, the percentage of attacks that were successful, the time that elapsed between the onset of an attack and when it was first detected, and the time it took to launch countermeasures.

The metrics could also relate to a company's overall risk profile based on an assessment of the vulnerabilities and threats faced by an organization and the countermeasures in place to deal with them.

Meaningful Metrics

Some vendors, such as Foundstone Inc. in Mission Viejo, Calif., and TruSecure Corp. in Herndon, Va., offer tools they say will help companies numerically score their risk on a sliding scale based on such assessments.

Used properly, such metrics can help security administrators give business managers a better snapshot of the profile, Cammarata said. At AAA, merely using statistics and benchmarks from organizations such as the SANS Institute in Bethesda, Md., and the Computer Security Institute in San Francisco

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Consequently, AAA is planning to gather internal metrics to build a one-page "dashboard" that will give managers a better, more relevant picture, he said.

Northrop Grumman Mission Systems in Reston, Va., is pursuing a similar dashboard approach, said CIAO Diane Murray. "It will give us a high-level management view of

ed in 2002 was roughly the same as in 2001. But the average loss reported from such incidents was only \$804,000, a decrease from an average of \$2 million the year before.

Companies appear to be bracing for more attacks, with 56% in the Gartner survey saying they expect a major politically motivated cyberattack on critical infrastructure in their industries within the next 36 months. A majority said that if such an attack were to occur today, they feel it would result in brief, multi-regional disruptions.

The Gartner survey also showed that a majority of respondents think open-source software is about as secure as other software. Over 46% said they think the federal government should use and develop open-source software. ▀

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Such information can also be useful to auditors for evaluating a company's compliance with regulatory requirements.

But gathering such metrics and using them in a meaningful way can be hard, especially when dealing with an issue such as risk, said Bill Spernow, chief information security officer at the Georgia Student Finance Commission in Tucker.

"The raw statistics that we need to create a measurable foundation do not exist," he said. Moreover, numbers may not always tell the full story, because there are too many variables and dependencies involved in measuring risk, Spernow said. At best, they are "trend indicators" that could create a "false sense of security" if relied upon solely, he added.

Standards such as ISO 17799, which covers IT governance and data security, can provide a good basis for understanding what's needed to build effective IT security, he said. ▀

Security Yardstick

Measuring effectiveness of IT security evolves the following

Understanding and prioritizing information assets; analyzing impact and likelihood of threats; coordinating efforts and resources

Discovering and targeting infrastructure weaknesses; highlighting larger exposures

Evaluating current spending levels and resource distribution; tracking changes

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BRIEFS

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SOURCE: GARTNER INC.

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Lessons of 9/11 Not Lost On Winners of 2003 Computerworld Honors

For this year's group, desire to improve the human condition is a shared theme

BY PATRICK THIBODEAU
WASHINGTON

BEFORE he attended last week's Computerworld Honors ceremony here, Patrick Bennett visited many of the city's monuments and read the testimonials carved in stone to remember the nation's heroes. Winning an award for a digital management system gave Bennett the opportunity to share what he learned from his visit.

"I see this less as a crowning achievement than as a kind of challenge," said Bennett, director of software develop-

ment at E Entertainment Television Inc. in Los Angeles.

That challenge is to "live up to all those folks who have given their lives so we might innovate and offer technological solutions to help society."

A theme common to the winners was a desire to improve the human condition, whether through the use of supercomputers that analyze global warming or the development of systems to combat terrorism.

Sumitomo Mitsui Banking Corp. in New York faced a challenge in complying with

the 2001 USA Patriot Act, an antiterrorism law. It needed to develop an online system for finding people on various government terrorist lists.

Peter McCormick, the bank's CEO, said the project provided more than just professional satisfaction. It also provided a heightened sense of purpose. "The bank is a half-mile from Ground Zero. 'The aspect of 9/11 has really added another dimension to what you can do, even as a banker, even as a technologist, in combating the war against terrorism,' he said."

Another winner, American Express Corporate Travel Solutions in Phoenix, developed a Web-based system that al-

lows travelers and agents at different sites to work together in real time. The system also lets travel managers know where their travelers are, according to Michael Laughlin, the company's vice president and chief technology officer.

"In case of emergencies like Sept. 11, we can help them get back in where they need to be," he said.

Patrick McGovern, chairman of Boston-based International Data Group Corp., Computerworld's parent company, said this year's Honors program resulted in 313 new IT case studies being presented to more than 140 museums, libraries and universities worldwide. "The case studies in this year's collection are representative of the very best in excellence, innovation and positive impact on society," he said. ▶



SEARCHING FOR HEROES

Special coverage: Learn more about the Honors program at our Web site:

QuickLink A296
www.computerworld.com



Brocade Boosts Security in SAN Software

BY LUCAS MEIRMAN

Storage switch maker Brocade Communications Systems Inc. last week released the fourth generation of its software for managing storage-area networks (SAN), adding new change management and security features as well as a dashboard-style user interface.

San Jose-based Brocade said the Fabric Manager 4.0 upgrade lets storage administrators logically cluster groups of switches or communications ports on their SANs. The administrators can then perform management and reporting tasks across the devices via a single operation.

The release also provides network topology maps and "SAN-at-a-glance" views designed to help IT managers visualize SAN configurations and track changes, according to Brocade. In addition, when combined with the Secure Fabric Operating System software announced in late March, Fabric Manager supports the implementation of network-based security policies, said Steve Dahab, the company's director of product marketing.

For example, the software offers authentication capabilities and can be used to encrypt control information or management data that's sent among different devices on a SAN. Dahab said the previous version of Fabric Manager supported some SAN security policies in the form of zoning. But he noted that with the device-level controls built into the upgrade, "this is a full policy-based infrastructure."

A 'Lock' on Security

Michelle Butler, technical program manager for the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign, said she expects to deploy the new Fabric Manager release soon. Butler noted that she likes its ability to "lock a port down and get into a switch without having to protect our own switch or network with a firewall."

Butler manages three SANs — two with storage capacities of 60TB each, and one with 40TB. The SANs will likely

total half a petabyte of data by the end of summer, she said.

With the upgrade, Brocade is "probably ahead of the game

compared with most of the competition from the security aspect," noted Randy Kerns, an analyst at Evaluator Group Inc. in Englewood, Colo.

Fabric Manager 4.0, which will be sold through disk array

vendors that resell Brocade's SilkWorm switches, can also be used to manage host bus adapters made by Costa Mesa, Calif.-based Emulex Corp., via the Fabric Device Management Interface standard. ▀

Out-of-the-Box Best Practices



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PATRICIA KEEFE

IT Superheroes

LOOK — UP IN THE SKY! It's a bird. It's a plane. No, it's another piece of legislation! Boy, your heads must be spinning. So many new business rules, regulations, policies and laws — some proposed, some pending and some passed — all hovering just overhead. It's like the tornado from hell bearing down on the hapless IT landscape. Better get ready, because it's definitely headed your way.

If nothing else keeps IT in business for the next couple of years, I'm betting government intervention will. We've got HIPAA; state, federal and international privacy laws; Internet tax moratoriums; antispam uprisings; crackdowns on corporate greed; Homeland Security demands pressuring industries ranging from airlines to credit card issuers. The timing couldn't be better: As we outsource application development and system builds, the emphasis in IT will shift over to understanding business processes like never before.

Many of these new policies pouring out of Congress and the states are going to land, one way or another, at IT's feet. All this legislative heavy breathing means that your business counterparts are going to have to add compliance to their core to-do lists, and they can't achieve it without IT. You can bet that this time there won't be any accusations of playing Chicken Little like we heard in the aftermath of Y2K. And you can be certain that noncompliance is going to be made so unsatisfactory to upper management that, for once, IT ought to be able to get the funding it needs to effect appropriate system and infrastructure changes.

So, how to get a handle on all this? Well, first, you need to figure out the legislative fallout for your company. Which newly passed or pending rules will apply to your business? Your industry? Your international operations?

Next, familiarize yourself and then your staff with the requirements and deadlines laid out in these new policies. Is there an industry coalition looking into the issue or working up possible guidelines? If so, join it. If not, consider launching one.

Ditto for inside the company. If your company has a steering committee tasked with ensuring compliance with the new regulations, make sure IT is on it. There isn't one? Mandate it.

Now get together with the business team



and do a thorough audit of the affected processes within your company and the systems they depend on. What are the weak links? Where do you need to add or delete or make redundant? And how can technology plug holes or ease the process?

Next, figure out the technology equation. Is this a patch job, or are we talking new systems? Is this a custom build, or are there off-the-shelf products catering to this issue? Has anyone else used these products? Get references.

Then you need to map out a project plan, deadlines, budgeting and staffing needs. And you'll have to bird-dog this project all the way down the line. It's not just your deadlines at stake — the legislation will have imposed some as well.

Corporate America caught a lucky break with the Sarbanes-Oxley deadline extension, but that was probably an aberration. It's going to take a team of superheroes to rescue some of these business processes and wrestle these regulations to the ground. Does IT have the right stuff? Your business will be riding on it. ■



PIMM FOX

The New Cluster Model

HIgh-availability clustering is too compelling to ignore. Typical clustering models for Unix have one server doing the work, with another standing by idle in case of failure. This active/passive approach can double hardware costs and add time and expense to deployment and management. That's a fair amount of capital to sink into unused computing resources. But the confluence of three factors may change the way clustering is approached.

First, Intel's Xeon processors offer a one-two punch of lower price and competitive performance when compared with RISC chips running Unix.

Second, the emergence of Linux for Intel servers, coupled with low-latency interconnects to bind servers together using Gigabit Ethernet or Infiniband technology, means better server communication.

Finally, storage decoupled from servers and the acceptance of storage-area networks and Fibre Channel technology make it possible to aggregate servers that then can act as one large machine.

Companies such as PolyServe Inc. in Beaverton, Ore., and Sistina Software Inc. in

Minneapolis offer software to tackle different aspects of clustering. Sistina's products enable the sharing of stored data, while PolyServe software makes it possible to manage Intel-based server clusters.

Compare prices. A Unix clustering product for Solaris begins at around \$6,000 (and up to \$50,000 per server). For two Sun Fire 6800 machines with active/passive clustering, the cost is about \$30,000 per server. This is designed for high availability and doesn't have any shared data clustering or multiple server combinations. PolyServe says its software costs \$3,000 per CPU, which on a cluster of four two-processor machines (eight CPUs) would run \$24,000.

Rather than dump a ton of money into a big box for a mission-critical data center, buying a bunch of Intel servers and coupling them to a SAN could be just as effective as a Unix setup, at much lower cost.

Another trend is new clustering and shared data storage software that goes beyond the availability layer to the file system level so all servers can see and share data. The software arbitrates who reads and writes data to disk at what time, and concurrent processing of data means more for your hardware dollar.

Also, consider the flexibility that clustering brings. When infrastructure has to grow, you can connect the new server to the SAN and add clustering software to that node. Applications don't need to change, and the IT learning curve for moving from Unix to Linux shouldn't be too arduous.

Perhaps some of the savings could go to IT staff bonuses. ■

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SPECIAL REPORT

06.09.03

Layoff Survivors

When Allmerica CIO Greg Tranter (far right) got the news that he had to cut his IT budget, he immediately told his staff, "Our employees expect that we will tell them what we know when we know it," he says. [Page 26](#)



Sweet Success

The IT staffers at No. 1-ranked Hershey Foods Corp. are like kids in a candy shop, working at a company considered an American icon and getting their hands sticky on some 120 IT projects under way. [Page 28](#)



Even when times are hard and money is tight, these employers do their best to keep their IT workers focused and challenged and to give them a reason to be proud.

By Steve Ulfelder

If you work in IT these days, you don't need anyone to tell you that times are tough. You might have watched as colleagues packed their cubicles and headed to the unemployment office. You probably haven't gotten a promotion or a decent raise in a while. And morale in your department has likely shrunk right along with the IT budget.

Although it may look bleak where you are, not all of your IT brethren are singing the blues. Some employers are bucking the negative trends. They're finding ways to give their IT workers the pay, training and technology projects they crave.

At CaraSTAR Industries Inc., which ranked No. 13 on this year's Best Places to Work in IT list, staffers are reveling in the family-friendly flextime. Instead of going to offshore outsourcers, cool technology projects at No. 17 Ford Motor Co. are staying in the hands of the Dearborn, Mich.-based IT staff.

Computerworld's search to find these top companies began six months ago with a call for nominations. Surveyed companies earned points for great training options, benefits and pay, but this year, it was the employees

Photo: Michael H. Smith/Photographer's Choice, Getty Images; David L. Newell/Photo Researchers, Inc.; Alan Bruckstein and Studio Vision

100 Best Places to Work in IT

COMPUTERWORLD 100 BEST PLACES TO WORK IN IT 2003

who got the final word. More than half of a company's score came from a survey of its IT employees and what those employees said is important to them in their jobs. The 100 Best Places are listed on the following pages (for a detailed look at our methodology, see page 36).

These companies start with the standard fare that IT employees used to take for granted — competitive pay, health insurance and sufficient vacation time. According to our survey of more than 11,500 employees at these winning companies, those basics are very much appreciated in today's economy (see chart at right). But what separates the good employers from the greatest ones?

Interviews with IT workers of all stripes — from help desk technicians to CIOs — indicate that in a down economy, the 100 Best Places earn the honor by using modern technologies that offer challenges, ensuring that employees get the training they need to meet those challenges, bending to accommodate family and personal needs, and tying all of them together with pride in the work of not only IT, but also the business as a whole.

Flare for Flexibility

"This company is just so family-flexible," says Kaci Turner of her employer, Carsurstar, a cardboard-packaging company with 2002 revenue of \$950 million. "On the one hand, I want to say they're strict because they sure expect you to do your job. But when you show you can do it, they'll do anything to accommodate your family needs," says Turner, a systems operator and help desk technician at the Austell, Ga.-based company.

As our survey of IT workers at these Best Places indicates, flexible work hours and telecommuting programs are prized by staff. Said one IT worker, "I'm given the flexibility with my work schedule that helps me stay balanced between home and work. I don't feel that I have to choose to be a mother or an employee. I'm empowered and able to accomplish both."

"IT people are working their butts off," says Tim Talbot, CIO at PHH Arval (No. 14), a fleet-leasing company based in Hunt Valley, Md. "You've got to support that any way you can." PHH Arval uses work-at-home products from Avaya Inc. and a virtual private network from Cisco Systems Inc. to let IT staffers telecommute full time or on an ad hoc basis.

Wal-Mart Stores Inc. CIO Linda Dillman agrees with Talbot. "IT people

Most Desirable Benefits

Our survey asked IT workers to rank the importance of various benefits on a scale of 1 to 10, with 1 being "not at all important" and 10 being "extremely important." Here are some notable findings from both ends of the spectrum:

Percentage who gave benefit a 10:

Benefit	77%
Health insurance	66%
State-of-the-art equipment	40%
Flextime	37%
Childcare	31%
Retirement plan	31%
Bonuses	8%
Stock options	8%
Job sharing	7%
Elder care benefits	5%

Pride & Ethics

IT workers were asked to state their level of agreement with a series of statements on a scale of 1 to 5, with 1 indicating "strongly disagree" and 5 being "strongly agree." If workers in Top 100 companies get along with their colleagues and take pride in their employers' work and ethics — notably characteristics in a corporate America that has taken some public-relations beatings in the past few years.

Percentage who agreed or strongly agreed:



here know that sometimes the hours aren't 8 to 5," she says of the Bentonville, Ark., retail giant, which came in at No. 15. "In turn, we need to be flexible." Dillman says the bulk of Wal-Mart's telecommuting and flexible scheduling is done informally, allowing managers and workers to create sensible arrangements.

The Pride and the Passion

In the post-Enron, post-WorldCom, post-job-security era, eyes may roll when two notions arise: pride in the corporate mission and a warm, familial work environment. But make no mistake — these are crucial components at the top IT employers.

"In my department, it is easy to see that the work we do is important," one respondent says. "Therefore, individuals perform at high levels and stay motivated." Many workers echo that sentiment. Whether they are remotely monitoring intensive-care hospital patients or supporting sales of three-day Caribbean cruises, IT workers excel when they believe their employers are going about their business honorably. Pausing to search for the right word, Carsurstar's Turner says, "This company is very... moral."

And while "We're like a family here" may be a cliché, the phrase comes up too frequently to be ignored. An astonishing percentage of employees at these top IT employers have good relationships with their colleagues (see chart below).

"The economic downturn hasn't been good for anyone," says Donald H. Newsom, IT director at Carsurstar. But leading employers have found creative ways to keep IT employees satisfied and loyal. "Our pay increases have been down, and our bonuses have been reduced," Newsom says. "But everyone here feels good about their jobs and realizes that as times get better, so will these benefits."

Loving Learning

Education and training are crucial to technologists, and that importance was reflected in the survey. "My employer provides significant opportunity for advancement and emphasizes everyone being a leader with a top-down commitment to leadership training," one survey respondent said.

David Foote, president of IT workforce research firm Foote Partners LLC in New Canaan, Conn., and a Computerworld columnist, says the training budget is the single best predictor of Top 100 status. "You see it year in and year out," he says. "The companies that

Top Retention Methods

invest in their workers are consistently rewarded."

In addition to generous certification and tuition-reimbursement programs, many Top 100 companies seek to make training, education and professional growth part of the IT environment. At ninth-ranked Discover Financial Services in Riverwoods, Ill., IT employees set individual plans annually, according to CIO Diane Offereins. This year, each worker has been encouraged to set a goal of 40 hours of education not directly related to his job.

Top 100 employers' education and growth initiatives range from grassroots efforts, such as the worker-initiated "Lead IT" leadership program at Royal Caribbean Cruises Ltd. (No. 11), to more formal programs.

For example, Ford has learned that because it relies less on outsourcing now, "we need a robust learning environment," says Roger Mitchell, the automaker's director of IT strategy and development. "That's the only way to

help people understand what they are to the organization and what [that organization is] going to look like three to five years from now."

One popular component of that education program is "shadowing"—having IT workers follow operations employees for a week to better learn the business. Many Top 100 companies offer similar "mile-in-my-moccasins" programs.

Fresh Challenge

Two years ago, Ford's IT personnel consisted of 30% internal staffers and 70% outside consultants. Marv Adams, vice president and CIO, elected to buck the outsourcing trend and reverse that ratio. Morale was a major factor. "When 70% of the work is on the outside, the best projects tend to float outside," Adams says, which stirred resentment among Ford IT employees.

"Now, the really exciting work—Web services, grid computing, a massive server consolidation, new CAD/engineering tools—is all inside. Not only are these the really fun technology projects, they're the ones that bring Ford the most value," says Adams. In the past 18 months, he adds, Ford IT has hired 775 people—and lost seven. The result? In an annual internal survey, IT job satisfaction rose from slightly under the company average to five points above

average in a single year.

The terrorist attacks of Sept. 11, 2001, devastated the travel and leisure industry. As a result, the IT organization at Royal Caribbean watched a \$200 million revamp of all major systems, internally dubbed Project Leapfrog, slam to a halt, and half of the Miami-based company's 400 IT staffers were laid off.

"People were mentally beaten down and morale-challenged," says CIO Thomas Murphy. "Through [fiscal] 2002, we were in maintenance mode. About all we could do was keep the engines running."

Entering fiscal 2003, though, Murphy devised a way to keep Royal Caribbean's IT department focused and challenged. The problems that had plagued the ill-fated Project Leapfrog persisted:

The company's systems were a jumble of siloed legacy applications with little interapplication communication or data sharing. The company needed a more modular, less expensive way to rationalize its applications.

Enter Project Jumpstart. Royal Caribbean is in the early stages of a program aimed at "detangling all of this mess," a component at a time, rather than in one massive \$200 million gulp, Murphy says. Using IBM's WebSphere middleware and Microsoft Corp.'s BizTalk, Royal Caribbean is retaining its AS/400 system and rewriting its enterprise applications (such as the software it uses to book tours for groups) one at a time.

Not only is the project helping the business move forward during rocky economic times, but it's also challenging IT staffers to learn new skills and be more resourceful.

Survey respondents value a challenge, and Top 100 companies tend not only to work with advanced technology but also to spread that work throughout their organizations to avoid creating groups of haves (those developing cutting-edge applications) and have-nots (those stuck maintaining old systems).

This year's Top 100 make it clear that even during hard times, employers can earn the respect and loyalty of their IT workers. "The economy may change," Foote says, "but human nature doesn't."

Are you satisfied with your...?

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HEALTH BENEFITS



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Sulfelder is a freelance writer in Southboro, Mass. Contact him at sulfelder@charter.net.

SPECIAL REPORT

COMPUTERWORLD 100 BEST PLACES TO WORK IN IT 2003

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Flexible hours	37%
Telecommuting	37%
Continuing education	37%
Reimbursement for technical certification	37%
Bonuses	36%
Subsidized child care	35%
Job sharing	34%
Eligible care/services	34%

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Percentage who agreed or strongly agreed:

"I have a good relationship with my co-workers"	89%
"I am proud to work for my company"	89%
"My job is interesting and challenging"	89%
"I have access to the tools and technology I need to do my job"	89%
"Our company is run ethically and honestly"	89%

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Answers in a simple way

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Are you
satisfied with
your...?



- Very satisfied
 - Satisfied
 - Neither satisfied nor dissatisfied
 - Dissatisfied
 - Very dissatisfied

Not applicable

SOURCE: 2010 BEER PLANTS & EQUIPMENT SURVEY, BREWERS ASSOCIATION

Ulfelder is a freelance writer in Southboro, Mass. Contact him at sulfelder@charter.net.



Right with right to right: Linda McGowan, Bill Mansano, and Sue Matys.

Layoff Survivors

Few IT departments came through the past year unscathed by layoffs, and our Best Places were no exception. How did these top companies ease the pain of downsizing? Communication tops the list. By Kathleen Melymuka

EARLY IN DECEMBER 2002, Allmerica Financial Corp. CIO Greg Tranter stood before his assembled IT team of about 500 and announced the news all CIOs dread: Despite intensive cost-cutting and the layoffs of 42 colleagues the year before, 65 more IT people would be laid off that day.

As he ended the meeting, his people applauded.

Why would employees applaud such devastating news? To support a leader they thought had done all he could to play straight with them and mitigate the coming pain. "They were grateful that everything had been attempted to minimize the layoffs," says software assurance manager Art Nawrocki. "They felt there had been honest and open communication."

Our annual Best Places to Work issue typically celebrates the good news about life in IT: great projects, training, salaries and advancement. But last year, 28 of our Best Places experienced IT layoffs, and since adversity can bring out the best in great companies, we decided to look at how they helped their people through bad times.

Lay a Foundation

Managing well in hard times has everything to do with how you handle things before you have to deliver the bad news, says Dick Fishburn, vice president and CIO at Corning Inc. (No. 85), which laid off \$50 of 1,200 worldwide IT employees last year. "You don't start preparing for something like this when you're faced with taking the action," he says. "It starts with open communications when times are going well about the status of the company and how that will affect the IT organization."

At the Corning, N.Y.-based company, a sharp downturn in telecommunications-related businesses foreshadowed trouble for IT. "As we began to see very sharp revenue impacts in the company, we began to communicate with people in the IT organization," Fishburn says. "You tell everybody everything you know as soon as you know it so that when you say something, people don't second-guess you."

"We were well attuned to the downturn, and we expected an impact," says Molly Rumberger, Corning's manager of corporate/enterprise applications. "Dick and his staff have always been really open. If he knows, he's very up-front and honest."

When Tranter got the news that he had to cut \$20 million from the IT bud-

get at Allmerica (No. 78), he immediately told his entire organization, "Our employees expect that we will tell them what we know when we know it," he says. "We said we would attempt to find strategies to lessen the impact but there were no guarantees."

Bill Mangano, director of client technology services at Worcester, Mass.-based Allmerica, says IT employees appreciated Tranter's candor. "It made them nervous, sure, because they could do the numbers and they figured we might have to do layoffs, but they were glad to hear it upfront rather than behind the scenes," he says.

Mitigate the Damage

The Allmerica management team slashed spending in every category from capital expenditures to travel. They left positions unfilled and brought contracted work back in-house. Employees were kept in the loop through an "Ask the CIO" Web site as well as numerous all-IT meetings. "It was like a fund-raising campaign," Tranter says, "but instead of 'How much have you raised?' it was 'How much have we saved so far?'

IT people wanted to help, so management offered part-time work and encouraged them to take unpaid furloughs. About 75% did. Allmerica outsourced 114 positions and transferred an additional 25 people to the outsourcing to be placed in other jobs. Allmerica also transferred more than 20 IT people to the business side.

At Corning, while divisions like fiber optics were laying off IT workers, others, like environmental sciences, were still hiring. So Fishburn's staff searched the company for openings. If a person couldn't relocate, he was sometimes able to virtually join a team located elsewhere. (One person on Fishburn's staff lives in Wales.)

MetLife Inc. (No. 100) in New York, which had to lay off 108 of its 4,066 IT workers last year, came up with the novel idea of trial jobs for relocated workers. IT workers who could be placed in the business were offered a six-month trial in a new location. "If they liked it, we'd move them," says Donna Mazzola, vice president of human resources.

When Allmerica ran out of options with \$6.5 million in cuts still to go, Tranter met with the business people to reorder priorities. "We didn't want to slice 10% off our workforce and still have 100% of the work," he says. "We worked extensively with them so work would go away as people went away. I won't say there was no added work,

How to Ease the Pain

BE HONEST. Tell the truth, as soon as you know it.

COMMUNICATE. Keep everyone informed throughout the process.

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MITIGATE. Do everything possible to lessen the number of layoffs.

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Corning's Fishburn agrees. "There are times when you have to lay people off without the work going away, but our philosophy is to get rid of the work," he says.

Face the Music

The task of choosing those to be laid off at Corning started with senior managers at the sites where employees were being laid off. They drew up pre-

liminary lists, and other managers reviewed them, adding and deleting names based on performance nuances. Finally, an independent corporate diversity panel assured that no group would be disproportionately affected. The multiple reviews eliminated any chance that layoffs were related to personality issues, Fishburn says.

The evening before the layoffs announcements at Allmerica, Tranter called the management team together to hear who would be laid off and prepare for questions people might ask. "Greg set the tone," says Nawrocki. "He had to lay off some of his leadership. The pain was shared."

The next day, Tranter called the departmental meeting, announced the bad news, explained what would happen throughout the day and took questions. Afterward, every person met with his direct manager. Those who were retained were told whether their role, responsibilities or manager would change. Those who were laid off met with a human resources person about the severance plan and placement services. Outplacement and other employee services were available no site.

Corning took a creative approach to outplacement services. In good times, these had been on-site recruiters for the growing telecom-related businesses. When the layoffs came, the recruiters morphed into outplacement advisers.

At Allmerica, a group of people who had been laid off thanked Tranter for the way he had handled things. "They were prepared," Mangano says. "They understood the situation and felt they had been treated with respect."

Linda McGowan, strategic measurement consultant at Allmerica, says she saw one laid-off employee advising

colleagues on how to complete his work. "He said, 'If you need help, give me a call. Don't worry about it,'" McGowan recalls.

Many employees at Corning seemed more concerned for their supervisors than for themselves, says Karen Madison, IT human resources manager. "I heard them say, 'I know this is hard no you. Are you going to be OK?'"

When the layoffs were done at Allmerica, Tranter told everyone via e-mail. "In some layoffs, you wonder when it will ever end," McGowan says. "We had a clear understanding of what was happening, why, how and when it was over."

Allow the Dust to Settle

In the days immediately following, Tranter made sure there were no formal meetings so all managers could be available in their offices. "We also did quite a bit of management by walking around," he says. "We encouraged management to bring groups together and talk things through and let people open up and vent if they needed to."

About a week later, he called everyone together again. He told them it had been difficult but it was over and it was time to talk about the future. "Greg said there are no guarantees anywhere, but we had a lot of work to do and we had to move on," Nawrocki recalls. "There is no security. You have to be resigned to that, but you don't dwell on it."

"We have some really neat strategic stuff that has been able to energize employees," Tranter says. "Business is still investing in some really good technology, and employees see that there is a future here."

Fishburn cautions that getting back on track after layoffs is tricky, because if you try to focus on the future before the worst is over, you can destroy your credibility. "There's a certain 'clutch and accelerant' aspect of communication," he says, and you don't want to start revving up until you're sure the layoffs are done. "You get only one chance to refocus on the future," he says, "so that's a timing issue you need to think about and work your way through."

Layoffs are always painful, but people survive when they're approached with honesty and respect. "People here were prepared," says Sue Matsy, HR relationship manager for IT at Allmerica, "and that made the difference."

Handling a Difficult Task



SOURCE: SURVEY OF EMPLOYEES AT THE 500 BIGGEST PLACES TO WORK COMPANIES

Melymuka is a freelance writer in Duxbury, Mass. Contact her at melymuka@yahoo.com.

get at Allmerica (No. 78), he immediately told his entire organization. "Our employees expect that we will tell them what we know when we know it," he says. "We said we would attempt to find strategies to lessen the impact but there were no guarantees."

Bill Mangano, director of client technology services at Worcester, Mass.-based Allmerica, says IT employees appreciated Trantier's candor. "It made them nervous, sure, because they could do the numbers and they figured we might have to do layoffs, but they were glad to hear it upfront rather than behind the scenes," he says.

Mitigate the Damage

The Allmerica management team slashed spending in every category from capital expenditures to travel. They left positions unfilled and brought contracted work back in-house. Employees were kept in the loop through an "Ask the CIO" Web site as well as numerous all-IT meetings. "It was like a fund-raising campaign," Trantier says. "But instead of 'How much have you raised?' it was 'How much have we saved so far?'

IT people wanted to help, so management offered part-time work and encouraged them to take unpaid furloughs. About 75% did. Allmerica outsourced 84 positions and transferred an additional 25 people to the out-sourcee to be placed in other jobs. Allmerica also transferred more than 20 IT people to the business side.

At Corning, while divisions like fiber optics were laying off IT workers, others, like environmental sciences, were still hiring. So Fishburn's staff searched the company for openings. If a person couldn't relocate, he was sometimes able to virtually join a team located elsewhere. (One person on Fishburn's staff lives in Wales.)

MetLife Inc. (No. 100) in New York, which had to lay off 168 of its 4,066 IT workers last year, came up with the novel idea of trial jobs for relocated workers. IT people who could be placed in the business were offered a six-month trial in a new location. "If they liked it, we'd move them," says Donna Mazzola, vice president of human resources.

When Allmerica ran out of options with \$6.5 million in cuts still to go, Trantier met with the business people to re-order priorities. "We didn't want to slice 10% off our workforce and still have 100% of the work," he says. "We worked extensively with them so work would go away as people went away. I won't say there was no added work,

but it was minimal." Trantier says. "We had to make sure that the right people were laid off, and that included IT." Trantier says.

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Handling a Difficult Task

Were there layoffs in your company's IT department in 2002?

NO
59%

41%

How would you grade how management at your company handled IT layoffs in 2002?



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100
BEST PLACES
TO WORK IN IT 2003

Cream of the Crop

These top-ranked companies give their IT employees access to cutting-edge technology projects and above-average benefits. Read how their unique approaches to management make employees happy to come to work.

Sweet Success

IT staffers are like kids in a candy shop, working at a company considered an American icon and getting their hands sticky on some 120 IT projects. By Gary H. Anthes

HALLOWEEN IS A BIG DEAL at candy maker Hershey Foods Corp., and employees take their annual party and costume contest pretty seriously. So Connie Porzeczek, manager of Hershey's information-systems project office, wanted to come up with a costume that was really scary. "So I got a grim reaper costume and put a sign on it calling myself 'A Scope Creep,'" she says.

By all accounts, it's a lot of fun to work at the \$1.2 billion chocolate company, based in Hershey, Pa. "I tell people I work at Hershey, and it brings a smile to their faces," Porzeczek says. "It makes you feel good to work at a company that you can be proud of."

WHAT'S NEW: There are currently 12 IT projects under way at Hershey. A recently completed extract allows customers, such as retail store chains, to check order status online.

Another recent project, sponsored by the CEO, has replaced paper and pencils with handheld devices that salespeople can use to record in-store inventories and then dial in and upload them to a corporate database.

Hershey has also built a storage-area network that consolidated data storage at a number of remote sites and brought servers into the central data center on a high-availability cluster. "It's state-of-the-art technology, and we were able to give users additional disk space," says Beth Klahre, director of operations and infrastructure services.

That pace of technology innovation keeps things interesting for Hershey's

IT staff. "From a technic standpoint, you never get stale," says Ed Gerhart, a group leader for client support.

WHAT'S WORKING: While all employees can take pride in making something everyone knows and loves — Hershey's Kisses, Almond Joys, 5th Avenue bars and more — there are specific reasons why people in the IT shop like working there enough to keep the annual turnover rate below 2%. They say the company is large enough to provide its staff with ample resources to pursue leading-edge technologies, but it somehow has also managed to maintain the friendly, informal atmosphere that prevailed under founder Milton Hershey in the early 20th century.

"We are very much like a small company with the resources of a big company," says George Spanos, director of applications.

Hershey has a relatively homogeneous and up-to-date client/server infrastructure whose key components are Sun Solaris servers and Oracle databases running business applications from SAP AG, Siebel Systems Inc. and Manugistics Inc. That modern architecture works to the advantage of the IT staff, says Spanos.

"We run 95% of our business through one set of systems," Spanos says. "That allows us to focus on extending value off of those rather than always having to go fix all those problems with 20 different platforms and a bunch of legacy systems. We have gotten a lot of the standardization and cleanup out of the way."

WHAT'S CHALLENGING: "The biggest challenge is budget constraints," says Valerie Fellenbaum, manager of client technologies infrastructure. "We are in a very conservative mode right now with the economy the way it is."

WHAT'S UNIQUE: "[Hershey has] done a really good job of incorporating into their culture a vision: 'We're a candy company,'" says Linda Pfitzenger, president of People!, a Gartner Inc. company in Bridgewater, N.J. "In our research, one of the top three factors why people are coming and staying at companies today is the vision and the reputation of the company."

"Hershey is an American icon," says Fellenbaum. "You tell people you work for Hershey and you get this, 'Oh, really? It's associated with quality and pride, the legacy of Milton Hershey.'"

Adds 36-year-old Gerhart, "I am absolutely certain this is the company I want to retire from."



That year, the fledgling company produced a total of three motorcycles.

Although the company's beginnings were modest, 100 years later Harley-Davidson Inc. is about as cool as it comes. The company has a loyal following of bike enthusiasts, and in 2002, it produced 263,653 motorcycles at its nine facilities. This year, it expects to build 289,000.

Harley-Davidson's IT team members are loyal, too, when talking about their department and what they say is the best company in the U.S.

WHAT'S NEW: In the past year, the IT department has been working on several new projects, including one that allows potential buyers to customize their dream bikes. "Many of our new projects have leveraged the Web to meet our business requirements," says David Lee, a senior project manager.

Lee says one such project involved using Web-based technologies such as Java to build an application that allows customers to view used motorcycles that are available for sale at dealerships through the corporate Web site.

"The application will say, 'OK, these are your options, and this is how soon you can get it,'" Lee says. "In the past, they'd have to call the dealers, and

Continued on page 32

The Cool Factor

IT staffers are as hooked on Harley as the company's customers: Leather and jeans are the unofficial dress code, and almost everyone rides a motorcycle to work. And the technology projects are as cool as the bikes. By Linda Rosencrance

In 1903, in a Milwaukee factory that was no more than a wooden shack with the name Harley-Davidson Motor Co. scrawled on the door, 21-year-old William S. Harley and 20-year-old Arthur Davidson built their first motorcycle for the public, a racing model with a 3 1/8-in. bore and a 3 1/2-in. stroke.

SPECIAL REPORT

COMPUTERWORLD June 9, 2003

Hershey, Pa.
www.hERSHEY.com

202
10th
5

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IT staffers (left to right): David Lee, Laurel Tschirhart and Jeff Schaefer

Milwaukee
www.Harley-Davidson.com

202
8th
4th

15

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Continued on page 32

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HOUSEHOLD



[continued from page 29]
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Carol Tsu, human resources director for applications, says more than 80 projects were in application development last year — and each one was strictly aligned with the company's business goals.

Jeff Schiele, senior systems manager, agrees. "The emphasis has shifted to application integration and data analysis," he says. "Our operational and transactional systems are pretty solid. So now the attention has shifted to sharing that information with the business and looking at it for business decision processes and analyzing it, so we're doing a lot of projects with data warehousing technology."

STAFFING PICTURE Unlike most other companies, Harley-Davidson hasn't suffered from the downturn in the economy. In fact, the motorcyle manufacturer has experienced significant growth over the past several years, Lee says.

"Last year the IT department — which has about 250 employees — had 39 new hires and 20 promotions," he says. "And in the first quarter of 2003, we had six new hires and six promotions."

And when Harley-Davidson has openings in the IT department, managers work with the human resources department to make sure they get a diverse candidate pool, says Jim Nejedlo, senior systems manager.

WHAT'S WORKING: The company keeps workers challenged by asking them "to provide the technology solutions for the business challenges or problems," says Gary Branger, network support lead. "That keeps you on your toes."

Branger says the company also expects the IT staff to schedule training in new technologies. "The company expects you to take the training you need to support the existing environment and the [project] that are coming up," he says.

WHAT'S CHALLENGING: Nejedlo says keeping up with the business is a challenge for the department.

"We've been experiencing double-digit growth for the last 12 years, and the future looks similar," he says. "So with a business that's growing, it's a challenge for the IT organization to keep up with it. Not only are we a growing organization, but the technology continues to mature and change and grow, and it's a double whammy for us to keep up with a growing com-

pany and with all the technology."

WHAT'S UNIQUE: Most IT workers at Harley-Davidson say the environment at the company is friendly and fun. It's a casual workplace where the dress code is leather and jeans and most everyone rides a motorcycle to work. "People say 'Hello' to you when they don't even know you," Schiele says. "People respect each other."

All they all say they're working for a company that is so well known, not only in Wisconsin but around the world. "People are excited about working with a company that is so cool to be associated with," Branger says. ■

Card Gables, Fla.
www.msi.com/fla

24B
28B
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Academic Appeal

IT staff is kept engaged with educational opportunities, a diverse culture, cutting-edge technology — and a nationally ranked football program. □

YOU MAY HAVE TO FORGIVE Lew Temares if he appears to be a little overexited; it's normal for the vice president of information management at the University of Miami to be animated and high-spirited. But ask him what IT employees at the Coral Gables, Fla.-based university like best about working there, and Temares goes into overdrive. "They'll say the environment, and then you have to be specific about what the environment is like. Part of it is their ability to advance their education, flexible, having great sports teams — things that bond people together," pushes Temares in a single breath.

"People generally don't wake up and say, 'Ugh, I've got to work at the University of Miami,'" he says. What's not to like? In addition to the sun and sun, people who work in IT can take classes at the university to strengthen their skills, they're encour-

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HOUSEHOLD



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COMPUTERWORLD

The Best
Places
to Work
in IT

Worldwide
2002



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aged to regularly attend industry conferences, they can work flex hours, and they're part of a culture that fosters upward mobility.

WHAT'S NEW: IT staffers get plenty of access to cutting-edge technology. For instance, the university continues to expand its wireless network cloud by adding remote connectivity to its library and classrooms, says Temares. The wireless network currently covers 90% of the campus, and there are plans to extend the network to the university's medical school, he says.

In addition, the university is in the early stages of exploring a telehealth partnership with Spanish telecommunications company Telefónica de España SA to provide distance-learning and physician consulting services to doctors and clinics in Latin America.

Meanwhile, the university's IT department is keeping busy with Web projects, including extending online research capabilities to the university's medical school students, he says.

STAFFING PICTURE: Temares is big on promoting people from within. Although he's currently looking outside to bring in a mix of seven Java developers and project managers to augment his 35-person application development staff, that's primarily because the university's 225-person IT department is stretched thin on those skills.

"I have some staff who run IT projects, but as we get more and more projects to do, it's hard to find people with project management experience," he says. "We haven't gone outside for higher-level people; we've always gone inside. But sometimes, if demand is strong and you need additional skills, you have to look outside."

Temares' people-focused approach

can be traced back to the early 1990s, when university officials were looking to trim costs "and I decided that I would not get rid of any people," he says. "If they're good enough to be with me when times are good, then we can ride it out together when times are tough."

WHAT'S WORKING: The "people first" culture brought Tim Ramsay back to the university's IT department two years ago when he became assistant vice president in charge of the school's telecommunications, data center and security efforts.

Ramsay joined the university 13 years ago in an administrative position within the IT organization. But after he earned his MBA in 1992, he was given a chance to become director of business services at the university, which included overseeing a staff of 250.

During that time, Ramsay drew on his technological acumen, most notably during an effort aimed at automating paper-based processes at the university, ranging from key-card reconciliations to journal entries. That project "brought me a lot of attention and brought me into closer contact with our programming staff," he says.

WHAT'S CHALLENGING: "When you work with vendors in the IT community, your staff has a window on what they're worth," says Ramsay. "Day in, day out, when your best people are interfacing with the Cisco's, Nortels, IBMs and CA's of the world, you're challenged to continue to find ways to keep your staff feeling good about what they're contributing and what they're doing at the university."

WHAT'S UNIQUE: "I like the opportunity to have a hand in the strategy here," says Ramsay, who now manages a staff of 95. He also likes the diverse culture, where IT staffers hail from places such as China and Sri Lanka. "I'm from St. Joseph, Mo., which is about as Midwest as you can get if you throw a dart at a map of the U.S." he says.

Overall, says Ramsay, the University of Miami's IT department is a great place to work. "You see people getting 35-year, 45-year, even 49-year awards for their length of service here," he says. "It's not hard to fall in love with the university."

ROUNDING OUT THE TOP FIVE

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PHOTO BY JEFFREY M. RAYNER FOR COMPUTERWORLD

Balancing Act

Achieving harmony in work and personal time isn't a feat that IT workers can accomplish alone. These Best Places make it a team effort of managers and staff.

By Jean Consilvio

THE IT PROFESSION earned a reputation long ago for intensive projects and on-call hours. Now, in a trying economy, demands on IT workers are increasing — not only filling up their busy workdays, but also

spilling over into comwork hours.

What sets the Best Places to Work in IT apart from many other companies is that they're giving managers the power to help IT employees find individualized alternatives for managing work and personal time.

In fact, in a Computerworld survey of this year's Best Places to Work employees, 71% of the 11,504 respondents said they are satisfied or very satisfied with the work/life balance options their companies offer. Flexible schedules were particularly popular with IT workers, who can easily log more than eight hours on some days and therefore want to be allowed to trim back their hours on other days. Here are some other ways Best Places are helping IT workers get more out of life.

Proactive Management

Managing talent in a way that's also productive for the company means paying attention to detail and anticipating needs. At No. 99-ranked South-

ern California Edison (SCE), IT managers are encouraged to look at how they can help improve employees' work lives. Implementing such a plan is even included in managers' performance reviews.

"We sat down with all our employees and asked them what causes them to spend personal time for work activities, and driving [to and from work] was huge," says Kevin DeMichele, a service activation manager in Irvine, Calif., who runs a centralized help desk 50 miles south of the main office in Rosemead. Many of his 20 employees were traveling 75 miles in 30 mph traffic each day. "We looked at how we could still provide a centralized feel to our clients but put our employees closer to home," he says.

One way to do that was to allow help desk employees to work in different offices so they could be closer to home but have one phone number that reached all of them, regardless of location. Of the five administrators who take such calls, three are in Irvine and two are now in Rosemead. SCE also provides alternative work sites that are closer to employees' homes. IT staffers can work from these locations on days they need to get home quickly.

DeMichele also set up a Central Activation Group made up of two people who handle more than 400 remote software installations every month. "We had these folks driving around to several locations, some far away, to load software on computers," he says. "We've been able to put them in offices near their homes, and they do installations remotely right from their desks."

Individual Attention

At West Group (ranked No. 80), a division of The Thomson Corp., IT workers formally apply for flexible work hours. Such an application might specify the number of work hours spent at home or in the office or the hours of a compressed workweek, which might consist of two weeks of nine-hour days with every other Friday off.

Ed Packer, manager of project services, says he also works individually with his staff to ease their schedules. Some staff are allowed to log their 40 hours earlier or later in the week, or leave work for appointments and family matters and make up that time at a later date. "People are definitely happy with that. I think they'd like to even have more of it if they could, but we have to keep in mind the business need and the coverage of the systems in our group — and what the employee's performance is like," he says.

The Eagan, Minn.-based company also allows some full-time workers to reduce their hours to part time. Karen Dippel, lead software engineer, worked 14 years as a manager at West and then switched to part time in February 2001 to spend more time with her three young children. She now works 32 hours a week spread over five days. "I was looking for a different work/life option because of the children, and they [managers] were supportive of that," she says.

Employees can transition to part-time work at SCE, too. "It's a two-way recognition — we value you, we want you to work here," says Mariette Keshishian, manager of IT training and communications.

"Implementing work/life balance has to consider the nature of the IT employee," she says. "They're awfully smart, high IQ, very committed, and they get enjoyment out of doing good work and seeing the results being used by the business." ▶

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—Curtis Reeb, Delta Air Lines COO,
Delta Technology CEO

COMPUTERWORLD 100 BEST PLACES TO WORK IN IT 2003

FOR THE 10TH YEAR, Computerworld conducted a survey to identify the 100 Best Places to Work for IT professionals. In December 2002, Computerworld accepted nominations from U.S.-based companies. Participants were asked to provide the name and contact information of the appropriate individuals at their companies who were familiar with or had access to employment statistics and financial data, as well as benefits, policies and programs for their IT departments and companies.

In January 2003, the contacts at the nominated companies received a 100-question survey asking about their organizations' average salary and bonus increases, percentage of IT staff promoted, IT staff turnover rates, training and development, and percentage of women and minorities in IT staff and management positions. In addition, information was collected on how each organization rewards outstanding performance, its retention programs and its bene-

fits, ranging from child and elder care to flexible time and reimbursement for college tuition and technology certifications.

Upon completion of the company survey, participants were e-mailed instructions on selecting a random sample of their U.S.-based full- and part-time IT staffs. All participating companies were required to obtain feedback from their employees. The responses to the employee survey went directly to a third-party research vendor.

Topics covered included satisfaction with training and development programs, base salary, bonuses, health benefits, stock/ESOP plans and work-life balance. In addition, employees were asked to rate morale in their IT departments, the importance of various benefits, and their level of agreement with a variety of statements, covering topics from career growth to management's fair and equal treatment of employees.

Nearly 12,000 IT employees responded to the employee survey from the first 100

companies selected. The nomination survey, company survey and employee survey were all conducted via the Internet. The company and employee survey portion of the research was cut off in February 2003. To qualify to complete the company survey, participating companies, both public and private, had to have 2002 revenue of \$250 million or greater and employ a minimum of 100 employees.

In scoring the responses from the company and employee surveys, company results were weighted based on employees' importance ratings from the employee component. Approximately one-half of the total scoring system is based on employee responses, with the remaining half based on the survey of the companies' benefits and other programs.

This year's survey process was managed by the IDC Research team of Kathy Dineen, Michele Peoples and Jen Meekan.

-Mari Koefoed and Ellen Fanning

REVENUE (\$ MIL.)	EMPLOYEES IN IT	RETENTION RATE (%)	RETENTION RATE (%)	RANK	REMARKS
10,470	1,000	95%	95%	5	The maker of Welch's candy bars as well as Jif, Jay and Mounds exports Hershey's-branded confectionery and grocery products to more than 50 countries. Hershey, located 10 minutes from the state capital and five hours from Baltimore and Philadelphia, is home to kid-friendly Hersheypark. The IT group has a turnover rate of less than 7%.
8,046	1,000	94%	97%	15	In 1995, 21-year-old William E. Marley and 20-year-old brother David Marley left school and started to build the first Hershey-Davidson computers. In 2002, the company recorded annual revenues of more than \$200 million. Marley says IT workers have an opportunity to learn and work in cross-functional teams. In addition to enjoying the mystique of working for an American icon.
8,113	2,000	25%	95%	7	The University of Miami campus is located on 250 acres in Coral Gables, a suburb just south of Miami. It annually enrolls nearly 15,000 undergraduate and graduate students from every state and more than 140 nations. Located in a culturally diverse region, the IT group represents a broad cross-section of the world. The edition also consistently remains under 5%.
2,525	500	95%	95%	10	Founded in 1992, this storage vendor's Matrix products include specialized hardware, software and services, providing storage management for open network environments. At 9% of revenue, investment in IT translates into innovation and a challenging work environment for the IT staff. Key customers include Citicorp Securities, Lockheed, Merrill Lynch, Oracle, Texas Instruments and Viasat.
2,793	800	95%	95%	6	This eye-care benefits provider was ranked 5th on Fortune's 2003 list of the "100 Best Companies to Work For." Internal handshaking between the division vice president and IT employees are held twice a month. Employees participate in team-based recognition processes and leadership changes.
44,000	1,500	13%	10	10	The company operates 28 casinos in 10 states under the Harrah's, Horseshoe, Rio and Showboat brand names. In a recent survey, IT employees' top three reasons why they work at Harrah's are job stability and career growth opportunities, Harrah's commitment to world-class IT performance, and employee rewards based on their contributions to the company's strategic goals.
6,370	1,500	15%	95%	16	This nonprofit health system includes eight hospitals, a home health and hospice agency, 13 physician practices and the service of affiliated physicians in Kansas City and the surrounding region. IT employees at Saint Luke's are offered a minimum of two weeks of training, and internal promotions are encouraged.
4,300	1,000	10%	10	10	Founded in 1945, this family-owned food company posts annual sales exceeding \$1 billion on more than 2,200 products. It manufactures and distributes packaged and field technical food products. The company is known for its 100-minute lunch-hour "tech talk" sessions. Its IT department has three career paths - business, technology and management - designed to attract, retain, develop and reward IT talent.
15,500	0	95%	95%	3	This credit card company, a business unit of Morgan Stanley, offers the Discover Classic, Discover Gold and Discover Platinum cards. Training programs for IT workers include a mentoring program, two weeks of new-employee training and individual career development plans. Lunch-hour "tech talks" give IT workers news of the latest developments at the company.

SPECIAL REPORT

10	104	14%	1	This entrepreneurial software company provides office, financial management, case management and Web-based software. More than 50% of current staffers are internal referrals, creating a tight-knit, loyal workforce. Recent clients include the Justice Department, the Smithsonian Institution and the Patent and Trademark Office. Both technical and project management training are offered to the IT staff.
11	3,225	5%	5	It was founded in 1969 when three Norwegian shipping companies merged. When Song of Norway/Royal Caribbean's first ship entered service, it became the first passenger ship built specifically for warm-weather cruising rather than point-to-point travel. IT employees are offered week-at-home programs, flex- and comp-time programs, and mentoring initiatives. A Ethics Committee made up of senior veges to recognize employees. Cruise benefits are available to all employees.
12	2,771	14%	5	This global payments company's award-winning "Poshness" advertising campaign is now seen in 95 countries and in 45 languages. It manages MasterCard credit cards, MasterCard debit cards, Cirrus ATM cash access and related programs, authorizing 32 million financial transactions daily. MasterCard rebates its IT workers up to \$7,500 per calendar year for postsecondary graduate and undergraduate courses, career-related fees and books.
13	6,500	10%	7	Founded in 1983, Consumer surplus paper products into paperized and then converts it into tubes, cores, composite cores, cartons and custom packaging. The company budgets about \$6,000 per IT employee for training. Employees can use that money for continuing education or conferences.
14	977	5%	11	The No. 2 vehicle-financing company worldwide, FHP Arval manages about 1 million vehicles, and offers vehicle purchase, ownership, financing and maintenance services. It also handles tax, title, registration and insurance requirements. The company focuses on providing fleet vehicles. IT workers are offered continuous learning, internal and external training and a tuition reimbursement program.
15	1 million plus	30%	26	The world's No. 1 retailer has nearly 4,700 stores, including discount stores, combination discount/grocery stores and members-only warehouse stores. It's the No. 1 retailer in Canada and Mexico as well. Founder Sam Walton's heirs own about 30% of Wal-Mart. IT workers can choose among 540 training classes, available as online training and formal classroom programs.
16	3,435	5%	6	The enterprise and supply-chain software maker's products manage an array of functions such as human resources, accounting, logistics, supply chain management and manufacturing. Co-founder Edward McNealy and his family own about 20% of the company, which is being acquired by PeopleSoft. IT employees are offered stock options, lunch with the vice president, movie tickets, "dining dollars" and tickets to sports events, in addition to cash bonuses.
17	141,726	8%	5	Henry Ford's many production assembly lines in the early 1900s laid the groundwork for Ford's position today as the largest pickup truck maker in the world and the No. 2 producer of cars and trucks. Its vehicle brands include Aston Martin, Jaguar and Volvo. Ford offers a competency-based framework that enables IT employees to increase technical depth through traditional and nontraditional modes of learning and development.
18	7,483	15%	8	The largest direct seller of cosmetics and beauty-related items in the world, with annual revenue of nearly \$2 billion. Avon reaches consumers in 140 countries on six continents. It has approximately 3.9 million independent representatives and is the largest corporate contributor to causes for women. IT employees are offered off- and on-site technical training, and management and soft skills training.
19	4,790	9%	5	Creating Congress in 2008 to bolster the housing industry following the Great Depression, Fannie Mae is now a public company operating under federal charter. It's one of the world's largest financial services firms and the U.S.'s No. 1 source for home mortgage financing. More than 20% of IT employees take part in the job-sharing option, and more than 20% received promotions in the last five years.
20	320,000	4%	11	Founded in 1927 as a messenger company, UPS has become the world's largest package-delivery company, transporting more than 13 million packages and documents each business day throughout the U.S. and more than 200 countries and territories. Employees attend at least one externally provided technical and management development course or career area, for a total expenditure of more than \$1 billion annually.
21	15,000	10%	10	In the pizza delivery business, Dominos Pizza ranks No. 2, with more than 7,200 locations in 50 countries. Founded in 1960, Dominos' stores are principally delivery locations. For 2003, the company has increased its IT education budget by more than 50%.
22	2,323	10%	8	The largest company of MetLife Mutual, this insurer offers individual and group life and disability insurance and annuities. The company, founded in 1900, has never laid off IT workers. Its IT training staff of 15 employees is devoted to offering technical education to the IT staff.
23	7,800	9%	4	A Fortune 500 company with \$30 billion in assets, American Family specializes in property and casualty insurance and life, health and long-term care coverage, as well as investment and retirement planning products. It's among the largest U.S.-based companies that concentrate on auto insurance. Customer management has made technology one of the three corporate focus points used to prioritize projects.
24	9,317	10%	5	Founded in 1980, this financial services company offers IT workers access to large-scale applications and middleware architecture. It provides consulting and audit services to the financial and to financial institutions and corporations from more than 80 offices, primarily in Illinois and Florida. It manages \$36 billion in lending assets.
25	2,079	15%	8	The company offers more than 60,000 computer products through catalogs, Web sites and two local showrooms in Illinois. In addition to computers, the company also sells printers, software, accessories, add-on boards and networking products. IT workers keep current with technology trends through the company's many vendor partnerships.

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How They're Chosen

fits, ranging from child and elder care to free time and reimbursement for college tuition and technology certifications.

Upon completion of the company survey participants were e-mailed instructions on selecting a random sample of these U.S.-based full- and part-time IT staffs. All participating companies were required to obtain feedback from their employees. The responses to the employee survey went directly to a third-party research vendor.

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companies selected. The nomination survey, company survey and employee survey were all conducted via the Internet. The company and employee survey portion of the research was cut off in February 2003. To qualify to complete the company survey, participating companies, both public and private, had to have 2002 revenue of \$250 million or greater and employ a minimum of 100 employees.

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This year's survey process was managed by the IDG Research team of Kathy Dakin, Michele Peoples and Jon McLean. Man Keefe and Ellen Fanning

	TOTAL EMPLOYEES	IT EMPLOYEES	IT EMPLOYEES PROMOTED	CHANGING JOBS OR LEAVING FOR ANOTHER JOB	RETENTION RATE	IT STAFF TO IT STAFF VICE
1 Hershey Foods Corp., Hershey, Pa. www.hersheys.com	10,470	292	10%	7%	5	The maker of such candy bars as Almond Joy and Mounds exports Hershey's-branded confectionery and grocery products to more than 90 countries. Hershey, located 10 minutes from the state capital and two hours from Baltimore and Philadelphia, is home to kid-friendly Hershey Park. The IT group has a turnover rate of less than 2%.
2 Harley-Davidson Inc., Milwaukee, Wis. www.harley-davidson.com	8,046	282	8%	4%	15	In 1903, 21-year-old William S. Harley and 20-year-old Arthur Davidson built and offered to the public the first Harley-Davidson motorcycle. In 2002, the company recorded international shipments of more than 200,000 motorcycles. IT workers have an opportunity to train and work in cross-functional teams, in addition to enjoying the mystique of working for an American icon.
3 University of Miami, Coral Gables, Fla. www.miami.edu	9,113	248	29%	4%	7	The university's main campus is located on 260 acres in Coral Gables, a suburb just south of Miami. It annually enrolls nearly 15,000 undergraduate and graduate students from every state and more than 140 nations. Located in a culturally diverse region, its IT group represents a broad cross-section of the world. The attrition rate consistently remains under 5%.
4 Network Appliance Inc., Sunnyvale, Calif. www.netapp.com	2,525	105	8%	4%	10	Founded in 1992, the storage vendor's NetApp products include specialized hardware, software and services, providing storage solutions for large-scale environments. At 8% of revenue, investment in IT implements a culture of innovation and challenging work environment for the IT staff. Key customers include Cisco Systems, Lockheed, Merrill Lynch, Oracle, Texas Instruments and Yodoo.
5 VSP (Vision Service Plan), Rancho Cordova, Calif. www.vsp.com	2,193	288	8%	3%	6	The eye-care benefits provider was ranked 16th on Fortune's 2003 list of "100 Best Companies to Work For." Informal lunch meetings between the division vice president and IT employees are held twice a month. Employees participate on teams that recommend process and business changes.
6 Harrah's Entertainment Inc., Memphis, Tenn. www.harcards.com	44,000	256	13%	8%	10	The company operates 26 casinos in 13 states under the Harrah's, Harvey's, Rio and Showboat brand names. In a recent survey, employees' top three reasons why they like working at Harrah's were skill and career growth opportunities, Harrah's commitment to world-class IT performance, and employee rewards based on their contributions to the company's strategic goals.
7 Saint Luke's Health System, Kansas City, Mo. www.saint-lukes.org	6,370	110	13%	5%	16	This nonprofit health system includes eight hospitals, a home health and hospice agency, 13 physician practices and thousands of affiliated physicians in Kansas City and the surrounding region. IT employees at Saint Luke's are offered a minimum of two weeks of training, and internal promotions are standard practice.
8 Rich Products Corp., Buffalo, N.Y. www.richs.com	4,300	108	10%	5%	10	Founded in 1945, this family-owned food company posts annual sales exceeding \$1.7 billion on more than 2,300 products. It specializes in bakery and dessert products and field technical support services. The company is located minutes from Niagara Falls. Its IT department has three career paths - business, technology and management - designed to attract, retain, develop and reward IT talent.
9 Discover Financial Services, Riverwoods, Ill. www.discovercard.com	16,500	1,870	0	3%	3	This credit card company, a business unit of Morgan Stanley, offers the Discover Classic, Discover Gold and Discover Platinum cards. Training programs for IT workers include a mentoring program, two weeks of new employee training and individual career development plans. Lunch-hour "tech talks" give IT workers news of the latest developments at the company.

SPECIAL REPORT

	TOTAL EMPLOYEES	IT EMPLOYEES PROPORTION	TRAINING BUDGET (\$ MILLIONS PER 100 IT EMPLOYEES)		
1 Software Performance Systems Inc., Arlington, Va. www.spsoft.com	154	248	14%	8%	1
2 Royal Caribbean Cruises Ltd., Miami www.royalcaribbean.com	3,225	248	5%	0	5
3 MasterCard International Inc., Purchase, N.Y. www.mastercardintl.com	2,771	1,027	14%	8%	5
4 Casterline Industries Inc., Austin, Ga. www.casterline.com	6,500	40	15%	2%	7
5 PHH Arval Hunt Valley, Md. www.phh.com	977	138	8%	2%	11
6 Wal-Mart Stores Inc., Bentonville, Ark. www.walmartstores.com	1 million plus	2,323	30%	8%	26
7 J.D. Edwards & Co., Denver www.jdewards.com	3,435	302	3%	10%	6
8 Ford Motor Co., Dearborn, Mich. www.ford.com	141,726	2,344	8%	7%	5
9 Avon Products Inc., Rye, N.Y. www.avon.com	7,493	354	15%	17%	8
10 Fannie Mae Washington www.fanniemae.com	4,760	856	8%	8%	5
11 United Parcel Service Inc., Atlanta, Ga. www.ups.com	320,000	3,475	4%	2%	11
12 Domino's Pizza LLC, Ann Arbor, Mich. www.dominos.com	15,000	83	10%	2%	10
13 Minnesota Life Insurance Co., St. Paul, Minn. www.minnlifeinsu.com	2,323	492	10%	6%	8
14 American Family Mutual Insurance Co., Madison, Wis. www.amfar.com	7,600	1,064	6%	6%	4
15 Northern Trust Corp., Chicago www.ntrs.com	9,317	1,062	15%	6%	5
16 CDW Computer Centers Inc., Vernon Hills, Ill. www.cdw.com	2,079	157	15%	6%	6

This enterprise-wide software system provider offers financial management, case management and Web-based software. More than 50% of current staffers are internal referrals, creating a tight-knit, loyal workforce. Recent clients include the Justice Department, the Smithsonian Institution and the Patent and Trademark Office. Both technical and direct management training are offered to the IT staff.

It was founded in 1969 when three Norwegian shipping companies merged. When Song of Norway Royal Caribbean's first ship entered service, it became the first passenger ship built specifically for warm-weather cruising rather than point-to-point transport. IT employees are offered work-at-home programs, flex and comp-time programs, and mentoring initiatives. A Rituals Committee seeks unique ways to recognize employees. Cruise benefits are available to all employees.

The global payments company's award-winning "Prizes" advertising campaign is now seen in 86 countries and in 45 languages. It manages MasterCard credit cards, MasterCard debit cards, MasterCard gift cards, Cirrus ATM cards and related programs, authorizing 32 million financial transactions daily. MasterCard reimburses its IT workers up to \$7,500 per calendar year for pre-approved graduate and undergraduate courses, course-related fees and books.

Founded in 1938, Casterline recycles paper products into paperboard and then converts it into tubes, cores, composite containers, cartons and custom packaging. The company budgets about \$6,000 per IT employee for training. Employees can use that money for continuing education or conferences.

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Henry Ford's mass production assembly lines in the early 1900s laid the groundwork for Ford's position today as the largest pickup truck maker in the world and the No. 2 producer of cars and trucks. Its vehicle brands include Aston Martin, Jaguar and Volvo. Ford offers a competency-driven framework that enables IT employees to increase technical depth through traditional and nontraditional modes of learning and development.

The largest direct seller of cosmetics and beauty-related items in the world, with annual revenue of nearly \$6 billion, Avon reaches consumers in 103 countries on six continents. It has approximately 3.9 million independent representatives and is the largest corporate contributor to causes for women. IT employees are offered off- and on-site technical training, and management and soft skills training.

Created by Congress in 1938 to stabilize the housing industry following the Great Depression, Fannie Mae is now a public company operating under federal charter. It's one of the world's largest financial firms and the U.S.'s No. 1 source for home mortgage financing. More than 20% of IT employees take part in the job-sharing option, and more than 80% received promotions in the last fiscal year.

Founded in 1907 as a messenger company, UPS has become the world's largest package-delivery company, transporting more than 13 million packages and documents each business day throughout the U.S. and to more than 200 countries and territories. Employees attend at least one internally provided technical and management development course or conference, for a total expenditure of more than \$1 million annually.

In the pizza delivery business, Domino's Pizza ranks No. 2, with more than 7,200 locations in 50 countries. Founded in 1960, Domino's stores are principally delivery locations. For 2003, the company has increased its IT education budget by more than 50%.

The flagship company of Minnesota Mutual, this insurer offers individual and group life and disability insurance and annuity plans. The company, founded in 1880, has never laid off IT workers. Its IT training staff of 13 employees is devoted to offering technical education to the IT staff.

A Fortune 500 company with \$10 billion in assets, American Family specializes in property and casualty insurance and offers life, health and homeowners coverage, as well as investment and retirement planning products. It's among the largest U.S. mutual companies that concentrate on auto insurance. Senior management has made technology one of the three corporate focus points used to prioritize projects.

Founded in 1893, this financial company offers IT workers access to large-scale applications and flexible work schedules. It provides banking and trust services to the affluent and to financial institutions and corporations from more than 80 offices, primarily in Illinois and Florida. It manages \$36 billion in banking assets.

The company offers more than 80,000 computer products through catalogs, telecasts, its Web site and two retail showrooms in Illinois. In addition to computers, the company also sells printers, software, accessories, add-on boards and networking products. IT workers keep current with technology trends through the company's many vendor partnerships.

SPECIAL REPORT



The Typical Best Place, By the Numbers

Revenue	Total IT workers
\$1.5 billion	1,000
Total employees:	
IT employees:	
Percentage of women IT staff members:	
Percentage of women IT managers:	
Percentage of minority IT staff members:	
Percentage of minority IT managers:	
IT budget:	
Spending per IT employee on training:	
Training days offered for IT staff:	

AVERAGE
WORK WEEK:
43 hours

The Benefits
Highs...

...And Room-
To-Grows

PROFIT MARGIN:
88% of Best
Places were
profitable
in 2002

LAYOFFS:
28% of Best
Places had
layoffs in 2002

PERCENTAGE OF COMPANIES THAT OFFER	PERCENTAGE OF COMPANIES THAT OFFER
Flexible hours	99%
Pretax spending programs for uncovered medical expenses	94%
Reimbursement for technology certification	93%
Telecommuting options for employees	91%
On-site fitness center or fitness membership reimbursement	84%

Rank	Company	Total Employees	IT Employmen t Percentage	Training Days Offered Per IT Employee	Work Week	Notes
20	Allstate Insurance Co., Northbrook, Ill. www.allstate.com	36,057	3,448	8%	6%	15
21	Household International Inc., Prospect Heights, Ill. www.household.com	27,907	1,938	22%	8%	11
22	J.B. Hunt Transport Services Inc., Lowell, Ark. www.jbhunt.com	16,265	298	17%	7%	11
23	Sonoco Products Co., Spartanburg, S.C. www.sonoco.com	12,000	123	20%	4%	8
24	Hewitt Associates LLC, Lisle, Ill. www.hewitt.com	11,077	1,486	15%	8%	4
25	Cerner Corp., Kansas City, Mo. www.cerner.com	4,643	2,964	26%	10%	15
26	Fred Segal Mac, McLean, Va. www.fredsegalmac.com	4,285	1,216	16%	4%	9
27	FedEx Services (FedEx Corp.), Collierville, Tenn. www.fedex.com	214,000	4,818	4%	3%	15
28	Lands' End Inc., Dodgeville, Wis. www.landsend.com	8,000	283	7%	1%	10
29	American Fidelity Group, Oklahoma City www.af-group.com	1,500	154	2%	1%	15
30	Roadway Express Inc., Akron, Ohio www.roadway.com	27,907	120	10%	1%	5

The Typical Best Place, By the Numbers



AVERAGE WORKWEEK:
43 hours

PROFIT MARGIN:
89% of Best Places were profitable in 2002

LAYOFFS:
28% of Best Places had layoffs in 2002

The Benefits Highs...

PERCENTAGE OF COMPANIES THAT OFFER...

Flexible hours	99%
Pre-tax spending programs for uncovered medical expenses	94%
Reimbursement for technology certification	93%
Telecommuting options for employees	91%
On-site fitness center or fitness membership reimbursement	84%

...And Room-To-Grows

PERCENTAGE OF COMPANIES THAT OFFER...

Domestic partner/spousal equivalent benefits	58%
Job sharing	58%
Same-sex partner benefits	53%
Elder care/senior services	49%
On-site child care	28%
Company-subsidized child care	27%

Rank	Company	2002 Revenue (\$M)	2002 Profit Margin (%)	2002 Layoffs (%)	2002 Best Place Score	Description	
1	Microsoft Corp., Redmond, Wash.	36,857	8%	0%	15	This issuer was founded in 1975 as part of Syntex, Resnick and Co., and became publicly traded in 1986. In 1995, it became independent after Syntex divested its remaining shares to Syntex stockholders. As a Fortune 100 company, Microsoft offers career advancement policies for IT workers and encourages them to take advantage of opportunities to work in many business areas to learn new skills.	
2	Verizon Wireless Inc., Ashburn, Va.	27,807	10%	22%	9%	11	With nearly \$20 billion in managed assets, this consumer lender has been serving middle-market customers since 1978. In March 2003, it was acquired by merchant bank BBG Holdings PLC. It's the No. 2 consumer finance firm in the U.S. IT workers are offered challenging assignments and multiple opportunities for career growth. Most managers in the technical group began their careers as programmers.
3	J.B. Hunt Transport Services Inc., Lowell, Ark.	16,285	10%	17%	7%	11	One of the largest truckload carriers in the U.S., J.B. Hunt has a fleet of about 10,700 tractors and 16,700 trailers and provides dry-van truckload services throughout the U.S., Canada and Mexico. IT workers can earn merit-based pay increases off the normal review cycle and are recognized with individual and team rewards and through public recognition at company events.
4	Shaw Industries Inc., Marietta, Ga.	12,000	7%	20%	4%	8	One of the world's largest makers of industrial and consumer packaging products, its top customers include Kellogg, Procter & Gamble and Pepsico. It employs approximately 18,000 people at more than 300 manufacturing and sales facilities in 32 countries. Recruiting and merit-employee retention programs focus on long-term retention. Syntel bonuses are awarded for above-average performance.
5	Verizon Communications LLC, Washington, D.C.	11,577	10%	15%	9%	4	Founded by Ted Turner in 1980, this global advertising and consulting firm completed its IPO in 2002. Its client roster includes more than half of the Fortune 500 and more than a third of the Global 500 companies. IT workers choose training through a database catalog of classroom-based, computer-based and distance-learning options. In its last fiscal year, more than 1,200 classes were offered to IT workers internally.
6	OmniCare Corp., Indianapolis, Ind.	4,943	3.6%	26%	10%	15	This provider of clinical, financial and administrative information management applications offers tools for managing electronic medical records, patient care and financial information access. As technology firms emerge round, pharmacies and other health-care providers, IT workers have the opportunity to work with leading-edge technologies and tools.
7	Providence Health, Seattle, Wash.	4,285	1.8%	16%	4%	9	Sister company to Franciscan Missions, this shareholder-owned, government-sponsored enterprise was established by Congress in 1970 and purchases, acquires and invests in home enterprises. It offers programs to provide IT workers with a balanced lifestyle, including an online concierge service that arranges for flight deliveries, dry-cleaners, lawn care, and party and vacation planning.
8	FedEx Services (FedEx Corp.), Dallas, Texas	214,000	6.0%	4%	9%	15	FedEx Services includes sales, marketing and technology support for FedEx units and provides a single point of contact for customers. IT workers have round-the-clock access to more than 1,000 courses through an online learning program and tutorial. More than 11,000 online courses are expected to be completed by its IT workers this year.
9	Lands' End Inc., Minneapolis, Minn.	8,000	3.6%	7%	7%	10	Started in a basement in 1953 along the river in Chicago's old laundry district, this retailer now markets its products through its catalog, website, catalog, 8 stores and retail stores in the U.S., U.K. and Japan, and its products can be found in about 220 Costco stores. Retailing giant Sears owns Lands' End, which is headquartered in Neenah, Wisconsin. IT workers are kept up-to-date on the latest tools and technologies and are offered leadership and personal growth initiatives.
10	Business Philanthropy Group, Oklahoma City	1,500	9%	2%	7%	15	Since 1990, this company has provided insurance products and services to the educational community and its trade association members throughout the country. Technical training is budgeted annually and dispensed based on project needs and company goals and objectives. Certain IT certifications are paid 100% by the company and are conducted on-site at its training facility.
11	ShoeBuy Express Inc., St. Louis, Mo.	27,907	10%	10%	9%	5	Founded in 1993, this teaching company specializes in two-day and longer tracks, interpreting specific topics as applied, food and beverage in the U.S., Canada and Mexico. The center operates some 10,000 lectures and 35,000 students through a network of about 500 U.S. terminals. IT workers can take technical or managerial classes, as well as soft skills training. Several of the Internet training classes are designed, developed and taught by IT staff members.

SPECIAL REPORT

**100
BEST PLACES
TO WORK IN IT**

Rank	Company	Employees	IT workers	IT workers as % of total	IT workers as % of employees	IT workers	Comments
1	McKesson Corp.	6,532	59	9%	1%	9	Located in Burlingame, Calif., this software company offers the programs Quicken, QuickBooks and TurboTax for consumers, accountants and small businesses. Other software offerings include industry-specific accounting and management applications for construction, the public sector, retail, manufacturing and wholesale distribution organizations. A team is designated solely to providing and coordinating IT training throughout the organization.
2	AFLAC	3,254	39	10%	3%	12	A Fortune 500 company, AFLAC is one of the largest sellers of supplemental insurance in the U.S. and an industry leader in Japan's cancer insurance market. It insures more than 40 million people worldwide, and at year-end 2002, its total assets were more than \$35 billion. The company picks up the tab for registration and exam fees associated with technical certifications. A cash award is also given to IT workers for successful achievement of technical certifications.
3	Oracle	12,000	95	8%	8%	8	Founded in 1974, the \$2 billion consultancy provides government agencies and Fortune 500 companies with information management and technology expertise. The firm operates in two segments: technology business and commercial business. Its partnership with technology training companies and colleges provides IT workers access to classroom-style training designed to maintain and grow their technology skills.
4	Central States Telephone Co.	401	369	10%	92%	92	This telecommunications company was formed in 1999 with the acquisition of Central States Telephone Co., the last of 10 small Bell Telephone companies to be put up for the provider that year. The company now serves 5.1 million customers in 36 states and more than 5 million customer customers in 25 states. A unique recognition program allows managers to reward IT employees with gift certificates on the spot.
5	AT&T	20,145	1,002	5%	5%	50	Founded in 1935 by A.J. "Al" Schindler with the proceeds from the sale of his family car, the localised and international services company's enterprise bright-orange fleet consists of 14,000 trucks and more than 40,000 trailers. IT workers are offered third-party vendor training via the Internet, on a variety of technical applications, unlimited access to technical books online, and classroom and summer technical training classes at local colleges and AT&T facilities.
6	Hilton Hotels Corp.	70,905	6,000	7%	9%	85	The company owns, operates and franchises hotels, with several of the world's most recognized brand names, including Hilton, Hampton Inn, Doubletree, Embassy Suites Hotels, Homewood Suites by Hilton, and Conrad Hotels. IT workers are currently exploring wireless technology to be used to assist guests and managers at check-in/check-out and messaging, and to assist managers in property management. The COO has been with the company for more than 22 years.
7	Altria Group Inc.	13,305	1,000	7%	8%	76	A subsidiary of the cigarette, beer and food giant Altria Group, the No. 1 U.S. cigarette retailer accounts for about half of the U.S.'s total cigarette shipments. Its Marlboro brand accounts for more than a third of the country's cigarette sales. IT training in 2002 focused on three key areas: technology, leadership and project management. Technology opportunities have included SAP, Web development and relational database training.
8	Advanced Micro Devices Inc.	6,700	3,200	45%	48%	48	Founded in 1985, this semiconductor company specializes in high-performance analog, mixed and digital signal-processing integrated circuits. The portfolio includes more than 10,000 products. The company maintains an in-house training and development program that offers personnel growth and skills training tailored to management and technical contributions to trade.
9	Lockheed Martin Corp.	125,000	30,073	69%	4%	241	The world's No. 1 defense contractor was formed in March 2001 through the merger of Lockheed and Martin Marietta. IT workers are offered 100% tuition and book reimbursement, 1,500 e-learning courses available around the clock and live classes for career development. IT executive mentorship programs provide one-on-one development.
10	Wells Fargo & Co.	27,000	947	20%	9%	35	The company that introduced America to Wheaton in 1854 is now the No. 2 credit union in the U.S., with brands such as Citizens, Chev, Total and Rio. Its other brands include Gold Medal, Belly Crocker, Draper, Hammerhead Helper, Fresh Roll-Ups, Pop Secret, Colombo and Yoplait. IT workers are given tools, technology and training with a strong technical infrastructure and provided partnerships with leaders in the IT industry.
11	Verizon Communications Inc.	1,704	90	10%	5%	5	As one of the largest providers of the set-top boxes used by cable subscribers to receive TV programming and interactive online services such as movies on demand, e-mail and Web connections, it holds 49 U.S. patents. IT emphasizes that all projects must have a business sponsor and be jointly managed with the business. The company offers an on-site MBA program.
12	Ernst & Young LLP	24,000	1,000	12%	4%	42	One of the world's largest accounting firms, Ernst & Young offers auditing and accounting services, legal services and services related to managing growth companies, human resources issues, online security, risk management and transactions. It offers IT workers a dual career path, either in management or as an advanced specialist, with the opportunity for advancement through equal rankings.
13	Bank of America Corp.	11,000	740	6%	6%	67	The bank holding company focuses on businesses and asset-based lending, global finance and institutional lending. It also offers lines of credit and international trade finance, among other services. Companies also provide consumer lending and deposits, mortgage loan servicing, small-business banking, private banking and credit cards. IT staff members are offered both on- and off-site training. Technical specialty sessions are offered in both venues, as well as via the Web.
14	Bank One Corp.	33,801	1,500	17%	9%	45	Founded in 1935, this financial holding company has assets of more than \$300 billion. Its IT workers are offered job sharing and flexible work schedules, as well as recognition and bonus programs. Seventeen percent of IT employees have received promotions within the past year.
15	First Data Corp.	194,000	1,000	20%	9%	5	The No. 1 holding company in the world can trace its heritage back to a small mail-order business in Washington in 1927 by L. Witter and Alice S. Mamm (ALW). It now has some 2,600 owned or franchised properties in 25 countries, including the hotel brands Marriott and Ritz-Carlton. The IT division offers a career development program that allows both individuals and managers to work cooperatively to navigate from one role to another to acquire knowledge and skills.
16	McKesson Information Solutions	5,005	3,004	14%	9%	60	Founded in 1933, McKesson Corp. is the second-largest pharmaceutical distributor in the U.S. Its 3D distribution centers serve 45 states. With annual revenue of more than \$20 billion, it ranks as the 20th largest industrial company in the U.S. The McKesson Information Solutions IT unit pays for a wealth of certifications. IT workers built a Habitat for Humanity house in 2002.

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SPECIAL REPORT



The Tops for...

DIVERSITY

1. McKesson Information Solutions
2. University of Miami
3. Freddie Mac
4. Assurant Group
5. USAA
6. Southern California Edison & Edison International
7. Discover Financial Services
8. Royal Caribbean Cruises Ltd.
9. Fannie Mae
10. Verizon Wireless

TRAINING

1. Wal-Mart Stores Inc.
2. Affiliate Insurance Co.
3. J.B. Hunt Transport Services Inc.
4. University of Miami
5. Saint Luke's Health System
6. Cerner Corp.
7. American Fidelity Group
8. McKesson Information Solutions
9. Harley-Davidson Inc.
10. PNC Anal.

CAREER DEVELOPMENT

1. Lockheed Martin Corp.
2. Household International Inc.
3. University of Miami
4. Sonoco Products Co.
5. Cerner Corp.
6. General Mills Inc.
7. Cigna Corp.
8. Hamill's Entertainment Inc.
9. Wal-Mart Stores Inc.
10. Domino's Pizza LLC

RETENTION

1. University of Miami
2. Hershey Foods Corp.
3. Network Appliance Inc.
4. Camstar Industries Inc.
5. Saint Luke's Health System
6. American Fidelity Group
7. Harley-Davidson Inc.
8. Hamill's Entertainment Inc.
9. Wal-Mart Stores Inc.
10. Domino's Pizza LLC

BENEFITS

1. Avon Products Inc.
2. J.D. Edwards & Co.
3. Fannie Mae
4. USAA
5. Computer Associates International Inc.
6. Capital One Financial Corp.
7. Verizon Wireless
8. Harley-Davidson Inc.
9. University of Miami
10. Network Appliance Inc.

The following 100 companies were selected based on their commitment to diversity and inclusion. This year, COMPUTERWORLD surveyed HR professionals from 1,000 companies nationwide. We asked them to rate their company's diversity and inclusion programs on a scale of 1 to 100. The survey also included questions about the size of their IT department, the percentage of IT workers who are women and minorities, and the average cost of training per IT worker per year.

RANK	COMPANY	LOCATIONS	EMPLOYEE PROMOTION			RANK	
			2002	2001	% CHG.		
1	McKesson Information Solutions, New York	www.mckinys.com	3,500	3,000	10%	4%	9
2	Bechtel International Inc., Dallas, TX	www.bechtel.com	22,000	9,000	0%	1%	5
3	Assurant Group Worldwide	www.assurant.com	5,129	6,000	-12%	0%	4
4	USAA San Antonio	www.usaa.com	20,868	2,800	11%	0%	6
5	Edward Jones St. Louis	www.edwardjones.com	27,000	9,000	15%	0%	6
6	Computer Associates International Inc., Islandia, NY	www.ca.com	8,001	4,000	11%	10%	6
7	Southern California Edison, El Segundo, Calif.	www.sce.com	12,900	1,000	0%	2%	7
8	HealthFunds Inc., Minneapolis, Minn.	www.hf.com	56,037	1,000	11%	0%	10
9	Infogate Technologies Ltd., Fremont, Calif.	www.infogate.com	3,027	2,000	0	0%	6
10	Luthersmith Publishing, Ohio	www.luthersmith.com	8,000	900	11%	4%	8
11	Eastman Chemical Co., Kingsport, Tenn.	www.eastman.com	12,301	2,000	23%	0%	15



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SPECIAL REPORT

**100
BEST PLACES
TO WORK IN IT**

COMPANY	TOTAL EMPLOYEES	IT EMPLOYEES	IT EMPLOYEE PROMOTIONS	% EMPLOYEES TURNED OVER	TRAINING DAYS OFFERED PER IT EMPLOYEE	WHAT'S SPECIAL?
M Sutter Health Sacramento, Calif. www.sutterhealth.org	37,500	988	14%	8%	3	Organization 1998 through the merger of Sutter Health and California Healthcare System, it's one of the nation's largest not-for-profit health care systems, serving residents in more than 100 Northern California communities. The IT department embraces the philosophy of promoting from within the organization, and more than 60% of all new hires have been referred by employees. Annual health costs average more than \$5,500 per IT employee.
R3 Securities Industry Automation Corp. Brooklyn www.siac.com	1,732	1,390	15%	5%	4	Securities Industry Automation Corp., or SIAC, was founded in 1972 as a subsidiary of the New York Stock Exchange and the American Stock Exchange. It runs the systems and communications networks that power the two exchanges and oversees U.S. market data. In addition, IT workers are offered management, professional and technical training, as well as tuition reimbursement for college and graduate-level course work.
R6 International Truck & Engine Corp. Waukesha, Wis. www.internationaldelivers.com	12,412	595	10%	2%	2	A subsidiary of Navistar, International Truck is a producer of medium diesel engines, medium and heavy trucks and severe-duty vehicles and a provider of parts and service. Through the joint efforts of the company's IT training department and corporate university, IT workers are offered training in Microsoft desktop products, Net, Visual Basic, Active Server Pages and SQL, as well as aeromechanical and language classes.
S7 Capital One Financial Corp. Falls Church, Va. www.capitalone.com	18,000	2,812	9%	6%	10	Started as an independent company in 1995, Capital One has a global customer base of 46.4 million and manages assets totaling \$59.2 billion. In its one of the top six credit card issuers in the U.S., with nearly 50 million customer accounts. Tailored incentive programs reward IT workers for performance. Eligible workers can receive long-term incentives or stock options.
R8 Conduit Corp. Perseverance, N.J. www.conduit.com	85,000	2,831	5%	42%	3	The protocol company is the world's top hotel franchise, with more than 6,500 locations. It includes the brands AmeriHost Inn, Days Inn and Super 8. Conduit also owns Avis Group Holdings, Fairfield Resorts, Galileo International, Cheap Tickets, Century 21, Coldwell Banker and Jackson Hewitt. It promotes an IT culture that allows for collaboration among the various business units and the sharing of best practices and potential technology solutions.
R9 3M Co. Maplewood, Minn. www.3m.com	35,024	1,811	10%	3%	5	Its products include Scotchgard fabric protectors, Post-it notes, Scotch-Brite scouring products - even asthma inhalers. 3M has seven operating segments and is one of the 30 stocks that make up the Dow Jones Industrial Average. 3M's IT group and a major emphasis on issues such as leadership, mobility, development and employee contribution.
R10 Verizon Wireless Warren, N.J. www.verizonwireless.com	41,000	2,303	10%	6%	10	Formed in 2000 when Bell Atlantic bought GTE, Verizon is the No. 1 local phone company in the U.S. and the No. 2 telecommunications services provider. A joint venture of Verizon Communications and Vodafone, the company has the largest nationwide wireless voice and data network and 33.3 million customers. IT workers are offered a fully funded on-site masters of technology program from Stevens University.
R11 The Vanguard Group Inc. Valley Forge, Pa. www.vanguard.com	10,76	2,828	9%	4%	5	The No. 2 fund manager in the U.S., Vanguard offers individual and institutional investors a line of mutual funds and brokerage services, and has more than \$510 billion in assets under management. Its Vanguard 500 Index Fund is one of the largest in the U.S. The company has had no layoffs in its 27-year history. IT workers attend classes at Vanguard University and at an on-site state-of-the-art training center.
R12 Northrop Grumman Information Technology Herndon, Va. www.ngitmanagement.com	22,556	22,066	11%	9%	3	The company (formerly Logitech) sells high-tech systems and services to government and commercial customers. Current offerings include integrated command-and-control hardware and software for the U.S. Department of Defense and computer-based systems for battle command and war-gaming simulations used in military training. IT workers are offered hundreds of instructor-led classes, master's degree programs, professional certification programs and technical seminars.
R13 J.C. Penney Co. Dallas www.jcpenney.com	230,000	1,029	16%	4%	10	James Cash Penney opened his first Golden Rule Store in 1902 in the mining town of Kemmerer, Wyo. Today, the retailer has about 1,050 J.C. Penney department stores, mostly located in the U.S., and a chain of 2,700 Eckerd drugstores. IT workers who earn master's degrees receive a base salary increase of \$3,000. A variety of flexible arrangements are available.
R14 Regions Financial Corp. Montgomery, Ala. www.rgobank.com	16,142	440	11%	5%	2	With some \$48.5 billion in assets, the company is one of the leading financial services providers in the nation, serving customers throughout the South with commercial and retail banking services and other financial services. The company has had 30 years of consistent earnings, and has never reduced the overall staffing of its IT unit.
R15 RadioShack Corp. Fort Worth, Texas www.radioshack.com	38,499	539	10%	9%	5	The company claims that 94% of all Americans live or work within five minutes of a RadioShack store or dealer. One of the leading U.S. electronics retailers, RadioShack (formerly Tandy) has more than 5,500 company-owned and over 2,500 franchised RadioShack stores that sell audio and video equipment, wireless and conventional telephones, computers and other items such as parts and gadgets. The IT unit emphasizes technology and career training as well as work-life balance.
R16 Gtech Corp. West Greenwich, R.I. www.gtech.com	2,637	481	12%	20%	10	Gtech is the world's No. 1 operator of lottery systems, supplying or operating lotteries for more than 80 customers in 44 countries. IT employees are rewarded in a multifaceted approach that recognizes key contributions with financial and non-financial rewards.
R17 Tech Data Corp. Charlotte, N.C. www.techdata.com	2,800	290	5%	10%	2	Founded in 1974, the \$15.7 billion global provider of IT products, logistics management and other value-added services is ranked 17th in the Fortune 500. Its catalog of products includes computer components, networking equipment, peripherals and software. The company distributes products from about 1,000 manufacturers. IT training includes instructor-led and Web-based opportunities. IT employees have access to more than 1,000 books, CDs, and audio and video programs.
R18 Allmerica Financial Corp. Wellesley, Mass. www.allmerica.com	5,56	435	10%	3%	10	Allmerica is a provider of personal automobile, homeowners', workers' compensation, commercial automobile and commercial multiple-peril insurance coverage through Citizens Insurance and Hanover Insurance subsidiaries. The IT unit has an assignment-based structure that allows employees to move easily from one assignment to another, based on business needs, employee skills, performance and career objectives.
R19 Principal Financial Group Inc. Des Moines, Iowa www.principal.com	15,039	1,638	10%	6%	3	The umbrella organization for a variety of financial service providers, it offers product and services, mortgage financing, mutual funds, annuities and investment advice. The company disbursed and went public in 2001. The Principal serves more than 13 million customers worldwide from offices in Asia, Australia, Europe, Latin America and the U.S. High performers in IT can request specific assignments to develop skills and benefit their careers.

SPECIAL REPORT



		1999 (FTE)	2002 (FTE)	% CHG.	IT FTE (2002)	IT % OF TOTAL	IT % CHG.	
1) Sutter Health , San Francisco, Calif. www.sutterhealth.org	\$7,500	1,000	34%	3	Operated in 1999 through the merger of Sutter Health and California Healthcare System, it's one of the nation's largest not-for-profit health care systems, serving residents in more than 100 Northern California communities. The IT department oversees the criticality of protecting data from within the organization, and more than 80% of all new hires have been referred by employees. Annual training costs average more than \$8,500 per IT employee.			
2) Securities Industry Automation Corp., Bridgeport, Conn. www.siac.com	1,732	1,800	15%	67	4	Securities Industry Automation Corp., or SIAC, was founded in 1972 as a subsidiary of the New York Stock Exchange and the American Stock Exchange. It runs the systems and communications networks that power the two exchanges and disseminate U.S.-based data worldwide. IT workers are offered management, professional and technical training, as well as tuition reimbursement for college and graduate-level course work.		
3) International Truck & Engine Corp., Indianapolis, Ind. www.intertechandengine.com	12,412	2,000	10%	21	2	A subsidiary of Navistar, International Truck is a producer of medium-duty engines, medium and heavy-duty and severe-service vehicles and a provider of parts and service. Through the joint efforts of the company's IT training department and corporate university, IT workers are offered training in Microsoft desktop products, Net, Visual Basic, Active Server Pages and SQL, as well as nontechnical and language classes.		
4) Capital One Financial Corp., Falls Church, Va. www.capitalone.com	18,000	2,000	9%	67	10	Started as an independent company in 1995, Capital One has a global customer base of 48.4 million and managing assets totaling \$56.2 billion. It is one of the top five credit card issuers in the U.S., with nearly 20 million customer accounts. Tailored incentive programs reward IT workers for performance; eligible workers can receive long-term incentives or stock options.		
5) Conrad's, Parsippany, N.J. www.conrads.com	85,000	2,000	5%	-40%	3	This clothing company is the No. 1 women's apparel retailer, with more than 8,500 locations. It includes the brands Ameri-First, Dayna Lee and Super 8. Conrad's also owns Arby's Holdings, Fairfield Resorts, Gallo International, Cheap Tickets, Century 21, Coldwell Banker and Jackson Hewitt. It promotes an IT culture that allows for collaboration among the various business units and the sharing of best practices, and potential technology solutions.		
6) 3M Co., Minneapolis, Minn. www.3m.com	35,024	1,000	10%	37	5	Its products include Scotchgard fabric protectors, Post-It notes, Scotch-Brite scouring products – even asthma inhalers. 3M has seven operating segments and is one of the 30 stocks that make up the Dow Jones Industrial Average. 3M's IT group puts major emphasis on issues such as leadership, mobility, development and employee contribution.		
7) Verizon Wireless, Wayne, N.J. www.verizonwireless.com	41,000	2,000	10%	67	10	Founded in 2000 when Bell Atlantic bought GTE, Verizon is the No. 1 local phone company in the U.S. and the No. 2 telecommunications company in the world. A leader in the delivery of advanced communications and technology, the company has the largest nationwide wireless voice and data network and 33.3 million customers. IT workers are offered a fully funded on-site master of technology program from Stevens University.		
8) The Vanguard Group Inc., Valley Forge, Pa. www.vanguard.com	10,175	2,000	9%	67	5	The No. 2 fund manager in the U.S., Vanguard offers individual and institutional investors a line of mutual funds and brokerage services and has more than \$590 billion in assets under management. Its Vanguard Index Fund is one of the largest in the U.S. The company has had no layoffs in its 27-year history; IT workers attend classes at Vanguard University and an on-site state-of-the-art training center.		
9) Lockheed-Martin Information Technologies, Bethesda, Md. www.lockheed-martin.com	22,596	2,000	10%	91	3	The company (formerly Logixnet) sells high-tech systems and services to government and commercial customers. Current offerings include integrated command-and-control hardware and software for the U.S. Department of Defense and computer-based systems for battle-command and war-gaming simulations used in military training. IT workers are offered hundreds of instructor-led classes, master's degree programs, professional certification programs and technical services.		
10) Jones New York Co., Parsippany, N.J. www.jnjny.com	230,000	1,000	10%	47	10	James Cash Penney opened his first Golden Rule Store in 1922 in the tiny town of Kemmerer, Wyo. Today, the retailer has about 1,050 J.C. Penney department stores, most located in the U.S. and a chain of 2,200 Edward drugstores. IT workers who earn master's degrees receive a basic salary increase of \$3,000. A variety of flexible arrangements are available.		
11) Bank of America, Charlotte, N.C. www.bankofamerica.com	16,142	4,000	17%	57	2	With assets of \$45.5 billion in assets, the company is one of the leading financial services providers in the nation, serving customers throughout the South with commercial and retail banking services and other financial services. The company has had 10 years of consistent earnings and has never reduced the overall staffing of its IT unit.		
12) RadioShack, Fort Worth, Texas www.radioshack.com	36,499	2,000	10%	57	5	The company claims that 95% of all Americans live or work within five miles of a RadioShack store or dealer. One of the leading U.S. electronics retailers, RadioShack (formerly Tandy) has more than 5,300 company-owned and over 2,000 franchise RadioShack stores that sell audio and video equipment, wireless and conventional telephones, computers and other items such as parts and gadgets. The IT unit emphasizes technology and career training as well as work-life balance.		
13) AT&T, Dallas, Texas www.att.com	2,637	600	12%	30%	10	Global is the world's No. 1 supplier of battery systems, supplying or operating batteries for more than 80 customers in 44 countries. IT employees are rewarded via a rewards approach that recognizes key contributions with financial and non-financial rewards.		
14) Verizon Business, Falls Church, Va. www.verizonbusiness.com	2,800	300	5%	10%	2	Founded in 1994, this \$16.7 billion global provider of IT products, logistics management and other value-added services is ranked 177th in the Fortune 500. Its catalog of products includes computer components, networking equipment, peripherals and software. The company distributes products from about 1,000 manufacturers. IT training includes instructor-led and Web-based opportunities; IT employees have access to more than 1,000 books, CDs, and audio and video programs.		
15) Americo's Financial Corp., Des Moines, Iowa www.americos.com	5,156	400	10%	57	10	Americo's is a provider of personal automobile, homeowners, workers' compensation, commercial automobile and commercial multiple peril insurance coverage through its Citizens Insurance and Horner insurance subsidiaries. The IT unit has an assignment-based rewards system that allows employees to move easily from one assignment to another, based on business needs, employee skills, performance and career objectives.		
16) Principia Financial Group Inc., Des Moines, Iowa www.principia.com	15,000	1,000	10%	57	3	The umbrella organization for a variety of financial service providers, it offers pension products and services, mortgage lending, mutual funds, annuities and investment advice. The company diversified and went public in 2000. The Principia serves more than 13 million customers worldwide from offices in Asia, Australia, Europe, Latin America and the U.S. High performers in IT can request specific assignments to develop skills and benefit their careers.		

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Hyatt Regency

8:00am to 8:30am	Registration and Networking Breakfast
8:30am to 9:00am	Welcome and Opening Keynote Outsourcing Watch 2003: The Best of Both Shores Marylyn Johnson, Editor in Chief, Computerworld
9:00am to 9:30am	Industry Update Evaluating Your IT Sourcing Options Bart Perkins, Managing Partner, Leverage Partners (an IT consultancy)
9:30am to 10:00am	Business Case Study Rick Hamilton, CTO, DFS Group Ltd.
10:00am to 10:30am	Refreshment Break
10:30am to 11:30am	Outsourcing Strategies Leadership Strategies in Offshore Outsourcing Moderator: Marylyn Johnson, Editor in Chief, Computerworld Panelists: <ul style="list-style-type: none">■ Marty Chuck, CIO, Agilent Technologies■ Rick Hamilton, CTO, DFS Group Ltd.■ Jerry McElhatton, Senior EVP of Global Technology and Operations, MasterCard International■ Greg Schuerman, Vice President and CTO, Mercury Insurance Group
11:30am to Noon	Open Forum



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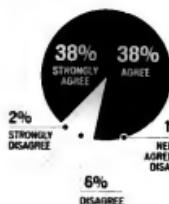


SPECIAL REPORT

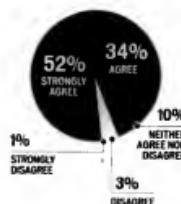


IT Employee Pulse

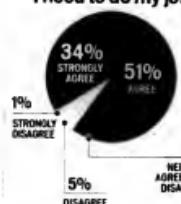
My company is a great place to work in IT.



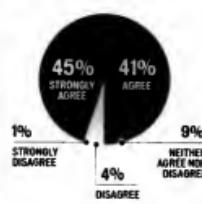
I am proud to work for my company.



I have access to the tools and technologies I need to do my job.



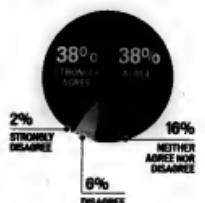
My job is interesting and challenging.



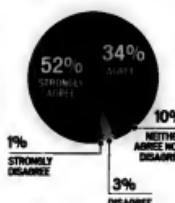
RANK	COMPANY	TOTAL EMPLOYEES	IT EMPLOYEES	IT EMPLOYEES PROMOTED	IT EMPLOYEES TURNED DOWN FOR PROMOTION	TRAINING DAYS OFFERED PER IT EMPLOYEE	WHAT'S SPECIAL?	
							IT EMPLOYEES	IT EMPLOYEES
10	West Group Eagan, Minn. www.westgroup.com	8,875	1,385	28%	4%	12	This subsidiary of Canadian publisher The Thomson Corp. publishes law books and online legal information. West Group also operates the Westlaw online legal research service, which contains more than 150,000 databases. An annual recognition program rewards individual employees with bonuses for special achievements that contribute to the success of the company.	
11	Xerox Corp. Stamford, Conn. www.xerox.com	69,000	708	10%	2%	5	Best known for its color and black-and-white copiers, Xerox also makes printers, scanners and fax machines. The company sells document management software and copier supplies; offers services such as consulting and document outsourcing and holds a stake in a joint venture with Fuji Photo Film. Its global IT operation offers opportunities to learn, work and gain experience in diverse technology domains.	
12	Peoples Energy Corp. Chicago www.peoplesenergy.com	2,479	167	6%	2%	5	Peoples Energy is a 150-year-old distributor of natural gas through two utilities, Peoples Gas Light and Coke (850,000 customers) in Chicago and North Shore Gas (500,000 customers in Chicago's northern suburbs). Outstanding performance in IT is rewarded through special work assignments, such as high-priority, highly visible projects.	
13	Harleysville Insurance Harleysville, Pa. www.harleysvillegroup.com	2,506	452	9%	10%	4	A regional underwriting organization operating in 12 Eastern and Midwestern states, the company offers property and casualty insurance to businesses and individuals. Two levels are offered a general tuition reimbursement program and leadership seminars focused on career development as well as personal goals and objectives. Merit pay, bonuses and incentive plans are tied to individual and company performance.	
14	AIA Financial Inc. New York www.aia-financial.com	4,667	579	15%	5%	6	A subsidiary of French reinsurance giant AIA, the company oversees units such as AIA Advisors, AIA DataBankers and Equitable Life Assurance, which offer life insurance planning, asset management, life insurance, mutual funds and annuity products. Individual objectives and performance are measured through semiannual reviews of the IT staff. A special IT Web site recognizes employees for service, career movement and accomplishments.	
15	Corning Inc. Corning, N.Y. www.corning.com	23,000	210	7%	2%	4	Founded more than 150 years ago, this materials maker provided the glass for Edison's light bulb. It's now the world's top maker of fiber-optic cable, which it invented more than 30 years ago. Continuous learning is built into every employee's annual development plan, which might include technical courses, college courses, seminars, conferences, networking, benchmarking, certificate programs or management development courses.	
16	Caterpillar Inc. Peoria, Ill. www.cat.com	36,463	3,273	14%	2%	2	A Fortune 100 company, Caterpillar is a leading supplier of agricultural equipment and the world's No. 1 maker of earth-moving machinery. It operates plants on six continents and sells its equipment globally via a network of some 220 dealers in about 2,700 locations. R&D spending of 3.5% to 4% of sales ensures that IT workers have access to continual product improvements and new technologies.	
17	CNA Insurance Chicago www.cna.com	13,200	1,165	1%	0%	4	Founded in 1957, CNA is a global insurance organization serving businesses and individuals. More than \$200 million has been committed to new software development this year, part of \$1.5 billion that has been committed to technology over the next three years.	
18	Arrow Electronics Inc. Mobile, N.Y. www.arrow.com	6,330	450	12%	6%	2	With 2002 sales of \$7.4 billion, Arrow is the world's largest distributor of electronic components and computer products. The company distributes products made by manufacturers such as 3Com, Computer Associates, Intel, Hitachi, Motorola and Texas Instruments. Full-time IT workers earn up to 10 weeks of paid time off after seven years of employment.	
19	Burlington Coat Factory Warehouse Corp. Burlington, N.J. www.coat.com	26,000	205	3%	3%	5	One of the U.S.'s largest coat sellers, this national clothing retailer operates more than 300 stores. It also sells bath-tissue, children's apparel and furniture, gifts, jewelry and linens. IT workers are offered flexible schedules. Training includes on-site reselling classes in new technology areas, vendor-sponsored in-house training, seminars and trade shows, management training courses, technical certification courses and reference book purchase plans.	

IT Employee Pulse

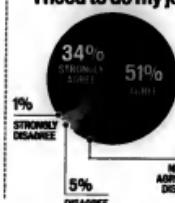
My company is a great place to work in IT.



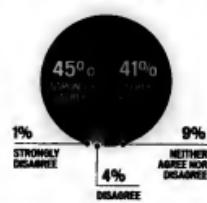
I am proud to work for my company.



I have access to the tools and technologies I need to do my job.



My job is interesting and challenging.



SOURCE: COMPUTERWORLD'S 1998 BEST PLACES EMPLOYEE SURVEY

RANK	FIRM	EMPLOYEES	1997 REVENUE (\$ MIL.)	1997 PROFITABILITY (%)	1997 REVENUE (\$ MIL.)	1997 PROFITABILITY (%)	1997 REVENUE (\$ MIL.)	1997 PROFITABILITY (%)
1	West Group Cincinnati, Ohio www.westgroup.com	8,075	1,300	29%	4%	12	This subsidiary of Canadian publisher the Thomson Corp. publishes law books and online legal information. West Group also operates the Westlaw online legal research service, which contains more than 15,000 databases. An annual recognition program rewards individual employees with bonuses for special achievements that contribute to the success of the company.	
2	Xerox Corp. Stamford, Conn. www.xerox.com	66,000	716	10%	2%	5	Best known for its color and black-and-white copiers, Xerox also makes printers, scanners and fax machines. The company's document management software and copier supplies, offers services such as consulting and document outsourcing, and holds a stake in a joint venture with Fuji Photo Film. Its global IT operation offers opportunities to learn, work and gain experience in diverse technology domains.	
3	People's Energy Corp. Chicago www.peoplese.com	2,470	367	6%	3%	5	People's Energy is a 150-year-old distributor of natural gas through two utilities: Peoples Gas Light and Coke (850,000 customers in Chicago) and North Shore Gas (150,000 customers in Chicago's northern suburbs). Outstanding performance in IT is rewarded through special work assignments, such as highly visible, high-visibility projects.	
4	Midwestair Insurance Baltimore, Md. www.midwestair.com	2,506	482	0%	10%	4	A regional underwriting organization operating in 32 Eastern and Midwestern states, the company offers property and casualty insurance to businesses and individuals. IT workers are offered a generous tuition reimbursement program and leadership seminars focused on career development as well as personal goals and objectives. Merit pay, bonuses and incentive plans are tied to individual and company performance.	
5	AIA Financial Inc. New York www.aia-financial.com	4,667	578	15%	5%	6	A subsidiary of French insurance giant AXA, the company oversees units such as AXA Advisors, AXA Network, AXA Distributors and Equitable Life Assurance, which offer financial planning, asset management, life insurance, mutual funds and annuity products. Individual objectives and performance are measured through semiannual reviews of the IT staff. A special IT Web site recognizes employees for service, career movement and accomplishments.	
6	Comptech Consulting Syst. Cincinnati, Ohio www.comptech.com	23,000	210	7%	2%	4	Founded more than 150 years ago, this materials maker provided the glass for Edison's light bulb. It's now the world's top maker of fiber-optic cable, which it invented more than 30 years ago. Continuous learning is built into every employee's annual development plan, which might include technical courses, college courses, seminars, conferences, networking, benchmarking, certificate programs or management development courses.	
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10	Gap Inc. San Francisco www.gap.com	26,000	268	3%	3%	5	One of the U.S.'s largest catalog sellers, this national clothing retailer operates more than 390 stores. It also sells bath items, children's apparel and furniture, gifts, jewelry and home. IT workers are offered flexible schedules. Training includes on-site training classes in new technology areas, vendor training in new software, assistance and trade shows, management training courses, technical certification courses and reference book purchase plans.	

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			EMPLOYEES (1,000+) FY03	PERCENT GROWTH FY02/FY03	PERCENT GROWTH FY01/FY02	RANKING 2003
16	Pennwest Corp. www.pennwest.com	28,371	1,000	15%	10%	6
21	Ogus Group, Philadelphia www.ogus.com	44,800	3,300	23%	9%	9
17	EarthLink Inc., Atlanta www.earthlink.net	5,106	771	23%	9%	3
33	Seller Sister www.sellersister.com	3,225	199	2%	0	4
34	MultiTech Corp., Minneapolis www.multitech.com	77,000	1,200	3%	10%	5
22	Honeywell International Inc., Morristown, N.J. www.honeywell.com	58,400	1,402	2%	9%	5
36	Information Resource, St. www.inforesource.com	3,700	250	0%	2%	2
17	Unisys Corp., Blue Bell, Pa. www.unisys.com	16,500	600	5%	7%	5
15	Nationwide Insurance & Financial Services Columbus, Ohio www.nationwide.com	29,465	5,800	7%	6%	7
19	Monstar Worldwide Co., Palo Alto, Calif. www.monstar.com	140,000	200	0	0	5
12	MetLife Inc., New York www.metlife.com	37,570	4,200	10%	14%	7

Source: Computerworld's Best Places to Work survey. Data is based on responses from 1,000+ employees. All figures are estimates. *Data is preliminary. **Data is preliminary. ***Data is preliminary. ****Data is preliminary.

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SPECIAL REPORT

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Stress-Busters

Does your IT job make you feel like you're in a pressure cooker? These Best Places share the unique ways they help employees let off steam.
By Steve Alexander

IN THIS TOUGH ECONOMY, IT workers are taking on more projects and longer hours. With job-related stress on the rise, they're looking for ways to cope.

In Computerworld's survey of 11,525 IT employees at this year's Best Places to Work, 25% said they find work "stressful," and another 9% said it's "very stressful." IT workers say they value honesty from employers, access to exercise equipment, outside activities and work-friendly teams to help them beat stress. Here are some tips from IT employees and managers about stress-reduction techniques that work.

Be as frank with your IT team as possible.

"In these economic times, IT developers are worried about their companies

looking offshore for workers; it makes IT workers concerned about how secure their jobs are," says Keith McLaughlin, manager of the application development center at Avoo Products Inc. (No. 18) in Rye, N.Y.

"Companies need to let the IT staff know what management is thinking," Avoo told us in October that they had looked at outsourcing but didn't feel it met their requirements. As a result, I don't think anybody feels right now that the company has any plans to outsource IT," he says.

"While there have been layoffs here in the past, we always were informed well ahead of time what was going on," says Jeff Ecott, a senior systems analyst in consumer marketing systems at Bethesda, Md.-based Marriott International Inc. (No. 51). "We have 'town hall' meetings where management talks to us and lets us ask questions. That puts us at ease."

Offer on-site exercise for employees to let off steam.

"Exercise is a huge stress release for a lot of people in IT," says Marylee Barron, a senior technical writer in the IT education division at Freddie Mac (No. 32), a McLean, Va.-based company that provides funds to home mortgage lenders. "We have a free fitness center on-site," she says. "It takes you away for a little while, and you don't have to deal with traffic and parking."

"I don't know how many problems I've solved by going to the gym; something usually occurs to me when I've cleared my mind," says Ecott. "I try to work out there every day."

Build cohesive IT teams with outside activities.

"As teams, we've relieved stress by having a lot of functions off-site on our personal time," says Sylvester Criscione, senior manager of global voice and messaging at Avon. "On one outing, more than 20 of us shot each other with paintball guns. Another time, both of my teams got together for drinks and hors d'oeuvres — not on the company tab, but paid for out of my own pocket. When you put out that effort, employees feel they really care about us."

"IT employees need some kind of place, away from the workplace, where they can feel free to be themselves and socialize with their peers," says Michael Gonzalez, applications systems manager at USA TODAY (No. 56), a financial services company in San Antonio. "When you schedule something off-site, it pulls people away from

things like e-mail and phone calls that are always hanging over their heads."

Christy Wilburn, a senior systems analyst at Hilton Hotels Corp. (No. 42) in Beverly Hills, Calif., fondly remembers that when IT completed a new demand-forecasting system for hotel rooms, members were rewarded with a dinner at a company hotel in downtown Los Angeles. "It was a huge recognition for us," Wilburn says.

Create a friendly work environment.

A casual workspace helps alleviate stress, says Page Bostic, client services manager at the Marriott International Systems Support Center, a help desk in Rockville, Md.

"Our desks are in short-walled cubes that make for good team dynamics because people can talk. People can decorate their cubes as they like," Bostic says. "We also have jeans Friday, and sometimes we throw a light football around."

"My philosophy is that the work is only so important; it's the people who make it happen. So you've got to put people first," says Mashooq Wessling, a lead technical systems specialist at Domino's Pizza LLC (No. 21) in Ann Arbor, Mich. "I make a point of getting to know other people on the team. I ask how their day is and how it's going, because then I can get a handle on how they react under pressure."

Let employees have their say.

USA TODAY has a room with terminals that employees can use to offer the company president suggestions or complaints. Employees can sign their names or remain anonymous. "It's another way of letting people communicate and either make things better or let off steam," says Charlie Cockerell, a senior systems programmer at USA TODAY.

Make sure stress doesn't get out of hand.

"We deal with a lot of stress because there's a lot of work, fewer people to do it, and we support some 24-by-7 production software even though we don't work 24 by 7," says Debby April, an IT technical director at Domino's. "We all sit close together, and when I see something brewing, I deal with it right away because I don't want it to boil over. I immediately try to get people one-on-one in a conference room." *

Alexander is a freelance writer in Edina, Minn. Contact him at Sorion99@yahoo.com.



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A Bachelor's degree in Computer Science, Engineering or related field is required. Advanced degree preferred. Significant experience in data and information is necessary, as is 3-5 years experience at a senior managerial level. Other requirements include: 5 years experience in activities associated with data and information management in a high performance computing environment, 3 years experience managing technical personnel, and 3 years in a project management role. Strong leadership skills will be crucial to your success.

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Computer Systems Analyst wanted by computer software development and consulting company in Palisades Park, NJ. Must have Bachelor Degree in any field + 1 yr exp in computer field. Must be fluent in Korean. Respond to HR Dept., Computer Systems Service, Inc., 472 118th Street, Palisades Park, NJ 07650.

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Software Engineer (with Bachelor's degree and 5 years experience) - Wilkes-Barre, PA. Job entails and requires experience in design development, implementation and support of ERP, Financial and e-commerce applications using Oracle, SQL Server, Sybase, VB.NET, OLAP, Unix and Windows. Retirement within USA possible. Attractive compensation package. Send resume to: Supply Partnership, P.O. Box 16701, 1655 East Third Street, Wilkes-Barre, PA 17701.

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Make Sure It Works

WILL IT WORK? It's a simple enough question. Say you're looking at an IT problem, and you need to select a product or technology or process change to solve it. You've got a range of options, and you already know which one you like best. Now your most likely course is to optimize your description of the problem to fit the solution you prefer. If you're even halfway competent at your job, you should be able to characterize the problem in a way that makes your favorite the obvious choice.

But will it work? That's the question that matters. If it won't work, you're just wasting time and money.

Trouble is, it's also the hardest question to ask in most organizations. If the CEO likes a particular vendor or approach, asking whether that vendor's product or that approach will actually solve the problem at hand means challenging the boss. That's not generally a career-enhancing move.

Neither is challenging the CIO. Or the project manager. Or the senior network administrator. Or, for that matter, the IT people who have to do the grunt work. Suggest that what they prefer isn't going to work, and they're as likely to dig in their heels as they are to consider alternatives.

If you ask "Will it work?" the wrong way — well, it just won't work.

But that's still the question that matters. It keeps us focused on the real problems we're trying to solve. Those are ultimately business problems, and they're separate from the political and budgetary and technological issues we have to negotiate along the way.

Politics and budgets and whiz-bang technologies will always get pushed. But somebody's got to keep an eye on what's important.

So what's the right way to ask "Will it work?"

Ask it in private. And ask it of everyone. And keep asking it.

Ask "Will it work?" in private, because that's less threatening. In private, it's a question, not a challenge. It doesn't put anyone on the spot in front of bosses or peers or subordinates. It doesn't demand defense of a position. It doesn't even require a real answer — though in private, it may be more likely to get one. It just keeps the question on the table.

Ask "Will it work?" of everyone,

because that's less threatening, too. The more people in your IT shop you ask, the less personal the question becomes — and the more likely you are to get 360-degree views of both the proposed solution and the problem itself.

But remember: You want to tap the honest expertise of as many people as you can. That means what they say in private has to stay private. Otherwise, you'll get an honest answer exactly once.

And you can't afford that. Because you want to keep asking "Will it work?" You want it to be a routine question. You want it to be one of the questions everyone in your shop thinks about regularly as a matter of course.

You want it to be a question they come back to again and again, because requirements change, and good projects go bad, and opinions turn sour. "Will it still work?" is just as important when you're hip-deep in a project as "Will it work?" was before it started. If a project needs to change direction or even get the ax, you need to figure that out as soon as possible.

And don't forget that you need to ask yourself — and keep asking yourself — the same things. Will it solve the business problem? Does it still look like a winner? Do you need to make adjustments to keep it workable? Will it work?

It's a simple question. And it will keep you focused. Not on deadlines, or political maneuvering, or technical elegance or the shininess of that latest and greatest product. But on what matters: getting something to users that will actually work to solve business problems.

Because if it won't work, nothing you do really matters at all. ▶





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